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26:2

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2

CONTENTS

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EDITORIAL

Jill Iliffe
AJAN Editor

Nursing education is an area of intense interest for researchers; both the theoretical content and the availability and adequacy of clinical placements. In this issue of AJAN, Levett-Jones et al investigated nursing students' experience of 'belongingness' and the way this experience is influenced by the duration of students' clinical placements. They found that students' self-concept, degree of self-efficacy, confidence, resilience, willingness to question or conform to poor practice, career decisions, capacity, and motivation to learn were all impacted by the extent to which they experienced belongingness. They suggest a consolidated period of practice for students to 'settle in' and establish collegial relationships is an important influence on their experience of belonging and a necessary precursor to their active and participative learning and call for a re-examination of the assumptions, educational philosophies, policies and practices that underpin the duration of clinical placements in contemporary undergraduate nursing programs.

Neville et al examine clinical placements for nursing students in the aged care sector. While most universities were able to negotiate sufficient aged care placements for their students, the adequacy of the placement was frequently not tested and clinical nursing experts in aged care were frequently not available. Neville et al suggest the development and implementation of a clinical audit tool for aged care placements, together with incentives for experienced aged care nurses to participate as educators between the university sector and the workplace. They also suggest greater use of community aged care services for aged care clinical placements and greater use of services away from the immediate locality of the university such as in more rural and remote locations.

Nayda and Rankin mapped information literacy skill development in the undergraduate nursing program from a South Australian university in order to explore student's understandings of their information literacy skill development and the link between information literacy skills and life long learning. They concluded that changes are required to increase both students' and academics' understandings of information literacy and its links to life long learning, including staff development and collaboration between academics, librarians and study advisors on the design and implementation of a consistent and progressive curriculum approach to teaching information literacy skills.

Scanlon's study aimed to assess the decision making process of nursing undergraduates when choosing a graduate nurse year program and to explore whether clinical school experience affects the decision making process. The transition from university to workplace is a critical time for newly graduated nurses. Scanlon found that choice of graduate nurse year program is strongly associated with past clinical experience and nursing specialisation offered and that undergraduate nursing students are choosing which graduate nurse year program will best suit their present and future career needs, regardless of past (positive) experience in a clinical school.

Mature aged students form a significant proportion of the undergraduate nursing student population. The study by Drury et al describes how mature aged people reconstruct themselves as nursing students. They found that mature aged students experienced three stages in their trajectory of becoming a registered nurse: taking the first step; keeping going; and letting go and moving forward. They also found,

not surprisingly, that mature aged students have different needs to younger students, including academic and pastoral support on campus, subsidised child care and creative timetabling.

Clinical nursing research has the objective of improving nursing care. Ozer et al examined the effect of music on preoperative anxiety in men undergoing urogenital surgery. Their results support the use of music as an independent nursing intervention to manage preoperative anxiety in patients undergoing urogenital surgery and that listening to self-selected music during the preoperative period can effectively reduce anxiety levels; a simple and cost effective way to enhance nursing care and improve the care experience of preoperative patients.

Hill and Clark looked at the capacity of diabetes educators to meet the needs of the increasing number of people with diabetes in Australia. Alarmingly, they found that almost 80% of the diabetes educator respondents were over the age of 40 years, with only 5% in the 20-29 year age and 5% in the 30-39 year age group, an insufficient number to ensure a sustainable workforce into the future. They suggest that strategies to address the barriers to effective teaching and learning in diabetes education in both the acute and community contexts, such as limited time and resources, individualised approaches and opportunities to maintain advanced skills and knowledge, need to be addressed.

In another paper focused on diabetes, Atak et al conducted a randomised single blind controlled study to evaluate the effect of patient education on knowledge, self management behaviours and self efficacy in patients with type 2 diabetes. The study was based in Turkey. They found that patient education had a limited effect on knowledge and self reported self management behaviours but had a significant effect on self efficacy in patients with type 2 diabetes. They recommended the development of long term patient education programs focused on patients' needs and concerns to follow-up and maintain knowledge, self management behaviours and self efficacy.

Rafii et al's paper from Iran studied the relationship between patients' reports of nurse caring and patient satisfaction with nursing care. They found a statistically significant relationship between patient reports of nurse caring and satisfaction with nursing care, however noted that heavy workloads and severe staff shortages in Iranian hospitals are reducing the time nurses are able to give to direct care with a potentially negatively affecting on patient's perceptions of nurse caring and their satisfaction with nursing care in the future.

In their second paper on the issue of young people and mental illness, Webster and Harrison explored how young people experienced the onset of mental health problems and investigate their initial interactions with the health system. Their research identified a basic process with four stages which had the characteristics of a maze through which young people have to struggle to find a way. At each stage, barriers and/or facilitating factors either delay or speed progress. Webster and Harrison's earlier paper which constructed a research based pre-care model to improve mental health interventions for young people was published in AJAN Volume 24 Issue 4.

And finally, Chater and Tsai examine the notion of truth telling and its place in palliative care nursing with a particular focus on nursing people from minority cultures. They raise some interesting questions around a patient's right to know the truth and the patient's choice to know the truth and the conflict that can arise between the culture of the nurse and the culture of the patient around 'telling the truth'.

Australian Government changes to the way research will be funded in Australia in the future are the subject of our guest editorial from Mary Courtney, a member of AJAN's Editorial Advisory Board. Mary sees opportunities for nurses and nursing research in the proposed changes and considers that, as a result of nurses' strengths in applied research and their ability to translate research outcomes into real world solutions, nurses are well placed to build external research partnerships and that nursing research is well positioned to be at the forefront of addressing national health priorities.

Reflections on nursing: how changes to the Australian research system will work to nurses' advantage

GUEST EDITORIAL

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Australian nurse researchers operate in an environment which will look significantly different in 6-12 months time. A deeper understanding of how the research system will work is gradually unfolding and no doubt we will see some new funding schemes start and perhaps some existing schemes end before 2010.

Excellence in Research in Australia

Although the Research Quality Framework (RQF) is no longer with us, its replacement, the Excellence in Research in Australia (ERA) initiative is well underway and requires universities to continue to build a performance culture focused on excellence and impact in order to achieve high research rankings. Nurse academics will come under significant pressure to increase levels of engagement in quality nursing research activity and demonstrate tangible research outcomes eg publication in quality refereed journals; higher degree research student completions; and external research income.

Review of the National Innovation System

In January 2008, Senator Kim Carr, Minister for Innovation, Industry, Science and Research, commissioned a Review of the National Innovation System, led by Dr Terry Cutler with over 700 submissions received. The report titled 'Venturous Australia' was released in August 2008 making several recommendations across a range of areas.

The report highlighted how the research quality rankings produced by the Excellence in Research for Australia (ERA) initiative may influence funding allocations to universities in the future.

While this undoubtedly poses a challenge, confronting the ERA plays to the inherent strengths of nursing research. The ERA list of ranked quality journals will likely include several dozen nursing journals providing an excellent opportunity to demonstrate to the broader scientific community the significant contribution nursing research makes in addressing major national health priorities of promoting and maintaining good health in an ageing society where increasingly the need for services to manage both the normal ageing process and the long-term impact of chronic illness is required.

Review of Cooperative Research Centres

As part of its review of the national innovation system, the Australian government commissioned a review of the cooperative research centres (CRC) program in January. This report titled 'Collaborating to a purpose', was released in August 2008 finding the CRC program should continue because it is still plays a very important role in Australia's innovation system by encouraging large-scale collaborative research across the nation. The report made a number of recommendations which aimed to address several perceived problems raised in submissions made to the review panel.

Of particular interest were recommendations highlighting that achievement of public good outcomes should be a major objective of CRC's rather than the current emphasis on commercialisation outcomes. The report noted public funding provided to CRC's should be dependent on the level of social benefit likely achieved by the CRC.

This change in the Australian Government's strategic direction clearly highlights the future opportunity for nursing research to be positioned at the forefront of health science research endeavours. The move away from commercialisation as a primary outcome to the exclusion of public good outcomes offers nursing research the chance to expand the already substantial impact it has made on the health of the public. Nursing research is well positioned to be at the forefront of addressing the national health priorities of health promotion and disease prevention and improving the quality of life through self-management, symptom management and care provision as well as leading research in addressing end-of-life issues.

Nurses are very well placed to build external research partnerships with industry partners, government (local, state and federal) and community organisations. This success is underpinned by nurses' strengths in applied research and our ability to translate research outcomes into real-world solutions. Excellence in partnership management is of major importance in fostering ongoing relationships.

As we look ahead and Governments eventually come to understand the significant social benefits and public good outcomes achieved by nursing research, it is my dream that nursing research will receive the funding it deserves in order to address some of the most important health care issues confronting our society.

The duration of clinical placements: a key influence on nursing students' experience of belongingness

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KEY WORDS

Belongingness, nursing student, duration of clinical
placements, mixed methods, nurse education

ABSTRACT

Objective
This paper reports selected findings from a study
that investigated nursing students' experience of
belongingness. The manner in which this experience
is influenced by the duration of students' clinical
placements is the focus of the discussion.

Design
A mixed method, multi-site case study approach using
an anonymous online survey: the Belongingness
Scale - Clinical Placement Experience was completed
by 362 students, 18 of whom also participated in
semi-structured interviews.

Setting
The setting for the study was two Australian
universities and one university in the United Kingdom
offering undergraduate nursing programs.

Subjects
Third year undergraduate students (n=362) were
recruited into the study.

Main outcome measure
Nurses experience of belongingness and the influence
of the duration of clinical placement on the experience
of belongingness.

Results
Students' self-concept, degree of self-efficacy,
confidence, resilience, willingness to question or
conform to poor practice, career decisions, capacity
and motivation to learn were all impacted by the extent
to which they experienced belongingness. Differences
in belongingness scores between the students from
the three sites were statistically significant, with
participants from the United Kingdom scoring higher
than those from either of the Australian sites,

$F(2, 355) = 21.70$, $p = <.001$, $\eta_p^2 = 0.11$. Although the
reasons for these results are multifactorial, this study
found the duration and structure of clinical placements
to be one of the most important factors affecting
students' belongingness.

Conclusion
A consolidated period of practice for students to
'settle in' and establish collegial relationships is an
important influence on their experience of belonging
and a necessary precursor to their active and
participative learning. Findings from this study call
for a re-examination of the assumptions, educational
philosophies, policies and practices that underpin
the duration of clinical placements in contemporary
undergraduate nursing programs.

INTRODUCTION

Belongingness is a phenomenon of importance to nursing students and to those involved in their education. For the majority of the participants in this study, the duration and structure of clinical placements was a key influence on their experience of belongingness. Students from three universities (two in Australia and one in the United Kingdom) emphasised the importance of having adequate time to settle in, so they could familiarise themselves with the personnel, culture and practices of each unit or ward they were assigned to. They described the uncertainty that surrounded their clinical placement experiences during this settling in phase and how they often felt lost and unsure of themselves, not knowing staff, patients or ward routines. Once settled, students often progressed from feeling like an outsider to feeling like an accepted member of the nursing team. Importantly, students felt that until they were settled and comfortable in the clinical environment they were unable to confidently engage with learning opportunities.

The paper uses a mixed method design to present a compelling view of students' experience of belongingness and how this experience is influenced by the duration of their clinical placements. Belongingness is defined and selected quantitative and qualitative findings are presented from a brief overview of relevant literature. The educational philosophies, policies and practices underpinning the duration of clinical placements are re-examined and challenged in order to bring a fresh perspective to the debate.

Definition of belongingness

Belongingness emerged from the study as:

A deeply personal and contextually mediated experience that evolves in response to the degree to which an individual feels (a) secure, accepted, included, valued and respected by a defined group, (b) connected with or integral to the group, and (c) that their professional and/or personal values are in harmony with those of the group. The experience of belongingness may evolve passively in response to the actions of the group to which one aspires to belong and/or actively through the actions initiated by the individual (Levett-Jones and Lathlean in press).

Background

A literature review previously undertaken by Levett-Jones et al (2007) discussed the psychosocial dimensions of belongingness and its implications for nursing students. Psychologists and social scientists suggest that the need to belong and be accepted is universal and fundamental, driving much of human pursuit, activity and thinking (Baumeister and Leary 1995; Hagerty and Patusky 1995; Maslow 1987). A diminished sense of belonging can have deleterious emotional, psychological, physical and behavioural consequences (Twenge et al 2001). A broad range of empirical evidence proposes that people who are deprived of belongingness are more likely to experience stress, anxiety, depression, diminished self-esteem and impaired cognition (Hagerty and Williams 1999; Baumeister and Tice 1990). They are also more likely to engage in affiliative behaviours, such as acquiescence and conformity (Clark 1992). Additionally, deprivation of stable social relationships has been linked to an array of pathological consequences, with those who lack belongingness suffering higher levels of both somatic and psychosomatic illness (Baumeister and Leary 1995). However while the experience of belongingness has been demonstrated to be an important and measurable construct, apart from experimental studies, little research has explored the factors that enhance or detract from belongingness.

The concept of belongingness has not been adequately explored in nursing education literature. Even though many papers refer to the importance of students being accepted, welcomed and supported on clinical placements, few studies focus specifically on the experience of belonging. While it is argued that belonging is important to a positive clinical placement experience, few studies address the meaning or implications of belongingness. The ways in which clinical environments engender belongingness and the consequences for individuals, the nursing profession and for patient care, have not been widely explored.

Further, the debates about how the duration of clinical placements impacts on students' experiences are inconclusive (Mallaber and Turner 2006; Clare et al 2003). Some authors (Turner et al 2006; Walker 2005) have referred to the length of clinical placements as a key element in developing a sense of belonging, but little is known about the mechanism for this.

RESEARCH DESIGN

Methods

In this study a mixed method design was used comprising of a survey of 362 students using an online anonymous instrument: the Belongingness Scale - Clinical Placement Experience (BES-CPE). This is a 34 item self-report instrument, modified from Somers' Belongingness Scale (Somers 1999) with the author's permission, and designed to measure belongingness specific to the clinical placement environment. Cronbach's alpha for the BES-CPE was high: 0.92.

Students were informed about the proposed study by advertisements placed on Blackboard™, a web-based platform at each of the three universities. They were invited to download the survey information statement from the website following which they could then exit the system or navigate to the online survey. On completion of the survey participants selected the *Submit Form* button to send it anonymously to a secure site. Submission of the online form was taken to imply consent. Each form was numerically coded for data entry purposes. No identifying personal information was recorded and the internet addresses were removed by appropriate software before the survey results were accessed by the researcher. The quantitative data were subjected to descriptive and inferential statistical analysis using Statistical Package for the Social Sciences (SPSS) (Version 13).

From those who had completed the survey a purposive sample of 18 students was recruited for in-depth semi-structured interviews. To gain a range of perspectives and to guide participant selection, volunteers were asked to provide their demographic details. Diversity in terms of age, gender and country of birth were accounted for in this sampling method. The interview transcripts were thematically analysed. Emerging themes were identified, categorised and verified by two independent researchers. While numerical data allowed for cross-case comparison and the testing of relationships between variables, the qualitative data elicited rich stories about the student's experiences of belonging related to their clinical placements.

Ethics approval for the study was sought from each of the participating educational institutions. Written consent was gained from participants who participated in the interviews and assurances were given regarding anonymity and confidentiality of the data.

Sites and participants

An international approach was adopted to facilitate a more comprehensive exploration of the concept of belongingness and to gain a comparative perspective. Data collection took place sequentially from the three sties over a nine month period during 2006. The survey participants were recruited from three universities: a large regional university in New South Wales (site 1); a small metropolitan university in Queensland (site 2); and a large metropolitan university in the south of England (site 3).These universities were selected because whilst they each provided a three year tertiary program as the requisite preparation for registration as a nurse, they exemplified different health and higher education structures, curricula and student cohort sizes. The UK site was of particular interest because it offered an opportunity to explore the influence of extended clinical placements on belongingness and a mentorship model of clinical supervision. Third year nursing students were recruited as they had undertaken a number of different clinical placements.

Demographic characteristics of participants

Site 1 comprised 44.2 per cent of the survey sample (*n*=160); site 2 comprised 16.9 per cent of the participants (*n*=61), and 39 per cent of the participants were from site 3 (*n*=141). The participants' ages ranged from 20 to 60 years. School

leavers (participants aged 19-22-years) comprised 41.5 per cent of the sample (*n*=144) and mature age students 58.5 per cent (*n*=203). Most of the participants (90.4 per cent, *n*=322) were women. The majority of the participants identified Australia (47.1 per cent, *n*=162) or the UK (41 per cent, *n*=141) as their country of birth. The remainder (11.9 per cent, *n*=59) were from a wide range of other countries. For 8.14 per cent of the participants, English was not their first language (*n*=29). These demographic characteristics were tested using a one-sample chi-squared test and the sample was found to be representative of the nursing student population from the three universities in the study.

The sub-sample of 18 third-year students recruited for the interview provided a diverse range of qualitative data and enabled data saturation. Sixteen women and two men participated in the interviews with ages ranging from 20 to 47 years.

FINDINGS

The first research question was: *"With respect to the clinical placement experience, to what extent do third year nursing students from three different university sites experience belongingness?"* To address this question the mean BES-CPE scores of participants from each site were measured and analysed with a one-way analysis of variance (ANOVA). Using $α$=0.05 ANOVA test assumptions were found to be satisfactory and the result was statistically significant, $F_{(2, 355)} = 21.70$, p=<0.001, $η_p^2$ =0.11. Post hoc comparisons using the Tukey HSD test revealed significant differences between sites, with a higher BES-CPE score being achieved at site 3 than for sites 1 or 2: for sites 1-2 p=<0.81, for sites 1-3 and for 2-3 p=<0.001. Mean BES-CPE scores with their 95 per cent confidence intervals are shown in figure 1.

The second research question asked: *"What factors impact on students' experience of belongingness and what are the consequences of that experience"?* While analysis of the quantitative and qualitative data revealed few widespread differences between the sites, in two major areas the students' experiences did diverge. These differences help to explain why

the mean BES-CPE score of site 3 is the highest of the three sites. These factors are: (1) the duration and structure of clinical placements and (2) the consistency, structure and quality of the mentorship provided to students. The following discussion focuses on the duration of clinical placements; mentorship is discussed in a separate paper (Levett-Jones et al in press).

Figure 1: Mean BES-CPE scores with their 95 per cent confidence intervals for each site

BES-CPE score (95% CI)
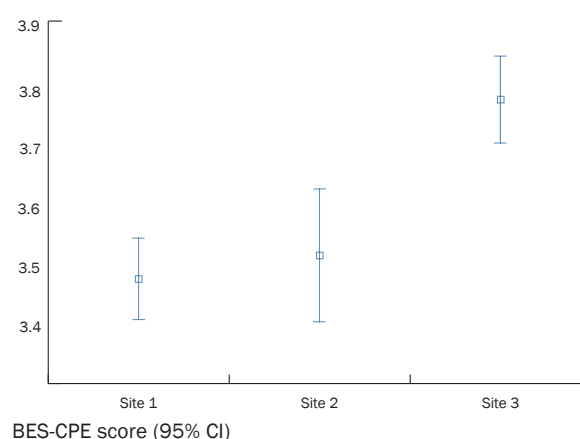
Duration and structure of clinical placements
'Settling in' and 'becoming part of the team'

The interviews revealed how the structure and duration of clinical placements influenced students' experience of belongingness. The themes of 'settling in' and 'becoming part of the team' were central to the students' accounts. At the start of each placement, students focused on adjusting to the clinical milieu in preparation for learning to nurse; many described this as a process of settling in. During this time students aimed to become familiar and comfortable with the staff and to gain a beginning understanding of the routines, terminology, language, values and practices specific to the ward or unit. For most of the students interviewed this period of adjustment took a minimum of two to four weeks, although it varied depending on the students' individual characteristics and the receptiveness of nursing staff. As one student explained:

The first couple of weeks you settle in and find the routine and whatever else, have a look around, and get to know the staff a bit... You find out what their

policies and procedures are. It really takes a couple of weeks before you start to feel comfortable.

For most students the settling-in phase was a time of uncertainity and anxiety; it signified a period of time where their primary motivation was establishing the fundamental interpersonal relationships that would allow them to progress from feeling like an outsider to becoming a recognised member of the nursing team. Successfully negotiating the settling-in phase made them feel as if they had a legitimate place in the clinical unit; they felt secure, supported and comfortable with the team. In essence, students began to experience belongingness:

It's great when you can stay on a ward for that bit longer and learn a bit more. Because that's where you grow in confidence; so to move it is like you have to start again. You begin to build up a rapport with the team. They're used to you being there and they know your limitations; what you can do and what you need help with.

The process of settling in was an inevitable process in each new clinical placement, irrespective of the students' level of experience and many students felt that frequent changes of placements resulted in large amounts of 'wasted' time as they had to renegotiate the settling-in process each time. However once students felt settled, they were able to move forward from this comfortable position to the integration phase during which time their sense of belonging was strengthened and learning became the primary focus. In this phase students sought to consolidate both their place in the team and their knowledge and skills and they embraced new learning opportunities with a greater degree of confidence. In placements that were of adequate duration, students often felt like active, integral and participative members of the nursing team:

With the four week placement I actually felt more like I worked there, as opposed to being a visitor. And I think it also gave me a chance to really get to know the staff and to fit in.

While the students viewed active participation as essential to their learning and professional

development, it often did not occur until they felt as if they belonged. Where placements were shorter than required, students' ability to capitalise on learning opportunities was reported as limited.

The clinical placement models used by the three study sites were reviewed to examine the extent to which each facilitated students' settling-in, integration and belongingness.

Site 1

The New South Wales Nurses and Midwives Board (2003) requires nursing students to undertake clinical placements across a wide range of facilities and clinical specialities that reflect diverse service levels. This is consistent with the nature of a comprehensive curriculum. In line with these guidelines, site 1 uses a placement model similar to that of many universities in Australia (Mallik and Aylott 2005; Heath et al 2002). Nursing students undertake a series of one-two week placements in a range of different clinical facilities across metropolitan, regional, rural and remote locations during the first two-and-a-half years of their degree, followed by extended blocks in their final semester, with a total of just over 800 placement hours. Qualitative findings from site 1 showed that very short placements had the potential to negatively affect the students' ability to successfully negotiate the settling-in phase:

The first weeks are always awkward because you don't know where anything is, you don't know who anyone is ... it is very hard. Two weeks are not long enough [...] you're just focused on finding your way around, getting to know the people, sort of watching people, observing how things are done. There are big gaps between the placements too, and you feel inadequate because you just don't have enough time to practise your skills.

Site 2

Clinical placement locations and duration are not mandated by the Queensland Nursing Council (QNC). Students at site 2 attended local placements for two days each week during the first two years of their program, with extended blocks of ten and twelve weeks across a range of metropolitan, regional and

rural locations in their final year; completing just over 1200 placement hours in total. This model is similar to the one being adopted by a small number of universities in Australia (Turner et al 2006). From the students' accounts, it was apparent that brief weekly exposure to clinical units, even when students returned to the same unit each week, did not always facilitate belongingness because it failed to provide a consolidated and consistent period of time for the students to settle in. Lack of continuity meant they had little opportunity to establish strong collegial relationships and it was more difficult to feel secure and at ease with the nursing staff:

We've been on clinical two days a week and it does make the continuity hard. If you're there for a block you can get a bit of a run with a particular person, but not when you're only there two days a week…It's disruptive. You just start to get comfortable with the staff and what you're doing over the two days and then you have a week's break and have to start all over again … you know, there's just no chance for follow through.

Site 3

Pre-registration students at site 3 complete a common foundation program and then pursue their choice of - adult, childrens', learning disability or mental health nursing. They undertake a minimum of 2300 clinical placement hours with the NMC (UK Nursing and Midwifery Council 2002) and the European Union Directives (European Union Directive 77/453/EEC 1977; European Union Directive 77/452/EEC 1977) prescribing the amount and type of experiences that students must have to be eligible for registration. Students in adult nursing undertake clinical placements in a variety of facilities, including hospital wards, clinics and community settings such as nursing homes, home visits and local health centres. Students enrolled in mental health nursing gain experience in a range of mental health settings, as well as one general nursing placement aimed at developing physical nursing skills. Similarly, learning disability placements include a broad range of settings in addition to one placement in mainstream health services. Students studying in the field of childrens' nursing undertake placements

across a range of settings aimed at learning about the healthy child and providing care for children and young children experiencing ill health (UK School of Nursing and Midwifery 2006).

In the UK extended clinical placements are the norm (Mallik and Aylott 2005). Students from site 3 typically had placements of four to twelve weeks duration, at five days each week, across a broad range of geographical areas and facilities, with half of the placement hours undertaken in the students' final year. This allowed most students to progress well beyond the settling-in phase, provided adequate time for the establishment of quality relationships between students and nursing staff and, as a consequence, enhanced their feelings of belonging to the team. From the accounts of students from site 3, it seemed that a series of extended placements throughout the program presented multiple opportunities for them to become increasingly at ease in clinical environments, immersed in the ethos and culture of nursing, and socialised into the nursing profession through close and extended relationships with their nursing colleagues. In this way they experienced a sense of belonging, not only in relation to a particular unit but also to the nursing profession:

My best placement was the elderly care ward; it was fantastic. It was for nine weeks overall and I began to feel like I was a member of the team, so it was really nice…I learned a lot because it was quite a long placement. You settle in more with a long placement. It takes about four weeks to settle in and get to know people. If you can sort of get yourself settled then you feel more confident, you can try new things and do more things on your own and that is a lot better.

It seems reasonable to suggest that the higher belongingness scores achieved by site 3 may be attributable, at least in part, to the extended clinical placements typical of that site. It is also possible that the differences in the total clinical placement hours between the sites may have contributed to the different belongingness scores, although the extent to which this is true cannot be determined from the students' accounts.

DISCUSSION

Currently there is little contemporary robust evidence to support many of the practices related to nursing students' clinical placements (for example, minimum clinical hours and structure of clinical placements). Most placement models have evolved through years of experience, custom and in response to industry and professional expectations (National Nursing and Nursing Education Taskforce 2006; Clare et al 2003). Nursing students frequently complain they do not spend enough time in clinical areas to feel comfortable (Mallik and Aylott 2005; Elliot 2002). Mannix et al (2006) state that valuable time is wasted as a result of the frequency and duration of clinical placement rotations and the students' need to re-familiarise and re-orientate themselves to new clinical environments. Nolan (1998) suggested that while students are attempting to familiarise themselves with new settings, routines and staff, they focus on little else but fitting in and being accepted. There is some agreement in the literature that clinical placements of short duration in a wide variety of clinical areas impact negatively on students' feelings of belongingness (Mallik and Aylott 2005; Clare et al 2003; Elliot 2002; Kleehammer et al 1990), although it is argued by others that it is not the clinical placement hours that matters but the quality of the experience (Edmond 2001). Kiger (1992 p.265), although highly supportive of extended clinical placements, suggests that long placements in clinical areas with 'bad' staff, in systems that offer inadequate support mechanisms, do not provide environments that are conducive to either belonging or quality learning experiences. The students in the current study certainly acknowledged that placements in environments where staff members were not welcoming or facilitative of their learning were of little benefit, irrespective of the length.

The registered nurses who support students in practice are also affected by short placements. Arguably clinicians feel challenged by the increased demands associated with an ever changing and constantly revolving mass of transient students. The students' accounts, anecdotal evidence and previous research (Levett-Jones et al 2006), suggest that staff are more likely to welcome and support students if they attend placements for longer periods of time.

In Australia, constraints around the exposure of students to fewer but longer clinical placements have been cited as: competing curriculum goals, escalating costs of providing clinical supervision staff (Beadnell 2006), increased patient acuity (Heath et al 2002) and the concurrent shortage of qualified nurses to support students in practice (Mallik and Aylott 2005). However using fewer placements of longer duration is in line with the recommendations of an Australian Senate report (2002) which specified that, while maintaining a balance between theoretical and practical training, undergraduate courses should be structured so that clinical placements are of longer duration than those that were currently available in many nursing programs. The findings from the study reported here highlight the need to re-examine the assumptions, educational philosophies, policies and practices underpinning the duration and structure of clinical placements in contemporary undergraduate nursing programs.

LIMITATIONS OF THE STUDY

Using a mixed methods approach allowed one methodological stance to enhance and inform the other by presenting different slices of reality and provided a more comprehensive understanding of the phenomenon of belongingness. However although fairly typical of the student cohorts from whom they were drawn, the participants cannot be assumed to be necessarily representative of a larger population outside the study contexts as they were predominantly white, English-speaking women. Furthermore, because the vast majority of participants were from Australia and the UK, this may limit generalisability to other countries.

An additional limitation is that the BES-CPE data were based on self-report. Thus respondents may have answered in a way they felt was more socially acceptable. It was anticipated however that the anonymity offered by online submission of questionnaires would improve the likelihood of participants responding honestly to the survey.

A small sample size for the interviews is in keeping with qualitative methods where the purpose is to provide detailed and in-depth descriptions of the phenomenon but the recruitment of only 18 participants may be an additional limitation.

CONCLUSION

The importance of a consolidated period of practice for students to settle in and to establish collegial relationships has been identified as a significant influence on their experience of belonging and a necessary precursor to their active and participative learning. Although most Australian universities, following the recommendations made in the Reid review (1994), provide an extended clinical placement in the final semester of the degree, the current study indicates that waiting until then may not be educationally sound nor likely to maximise the potential for active and purposeful clinical learning (Levett-Jones and Lathlean 2008). The scheduling of clinical placements of less than fours weeks should be carefully considered as this may not be best practice. These arguments should be of particular interest to nurse regulatory authorities as well as to academics who design undergraduate nursing programs, as the criticism surrounding students' preparedness for practice may be linked, at least in part, to the structure and length of clinical placements in nursing programs and the impact of current models on students' clinical learning experiences.

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A stocktake of existing aged care clinical placements for undergraduate nursing students in Australia

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KEY WORDS

Nursing education, aged care, clinical placements

ABSTRACT

Objective
The aim of this study was to survey selected universities on a variety of aspects of the aged care clinical placement component of undergraduate nursing courses.

Design
A cross-sectional, descriptive design using a questionnaire was employed.

Setting
Selected Australian universities offering undergraduate nursing courses.

Subjects
Australian universities having a faculty, department or school of nursing (n=32).

Results
It was found that placements occurred in the first and third years of academic study largely in an aged care facility close to the university site. There was often competition between universities in trying to access the same facilities for student placements. Not all universities performed a formal assessment of the facility's suitability for an aged care clinical placement and often universities struggled to find university educators suitably qualified in aged care.

Conclusions
Recommendations include the use of sites other than aged care facilities that offer aged care specific services. Use of services away from the immediate locality may expand student experience, while better university co-ordination of placements may ensure fairer access to all students. The development and implementation of a clinical audit tool, together with incentives for experienced aged care nurses to participate in higher education may contribute to the development of quality aged care specific skills.

INTRODUCTION

A common response to the mention of 'aged care nursing' around a group of nursing students is that it is depressing and inflexible (Pursey and Luker 1995), exhausting (Beck 1996) and requires little educational or skill preparation (Wade 1999). Nursing students do not necessarily dislike the 'aged' they dislike the 'nursing' (Fagerberg et al 2000). Consequently 'aged care nursing' is rated as one of the least preferred career choices on graduation (Moyle 2003; Happell and Brooker 2001). A conceptual gap exists between what constitutes 'aged care nursing' and 'nursing older people'. The concept of 'aged care nursing' lies with negative perceptions of the residential aged care sector. The positive and innovative aspects of this sector are continuously overlooked and little recognition given that the majority of nurses work and will continue to work with older people. With the ageing of Australia's population, the opportunities to nurse in areas where there are no older people are going to be severely limited. Therefore it is important that undergraduate nursing students receive appropriate theoretical and clinical education in aged care.

University nursing programs have been criticised for perpetuating negative perceptions of aged care nursing by the way in which aged care has been presented within both the theoretical and clinical components of the curricula. It has been found that frequently curricula have lacked specific aged care theoretical content or that aged care has been integrated across the curriculum therefore diminishing its importance to students (Wade 1999; Mezey et al 1997). Moreover, the theory has generally been taught by academics with little interest and experience in working with older people and whose attitudes were likely to have a negative effect on students (Marsland and Hickey 2003; Australian Department of Health and Ageing 2002; Wade 1999). The criticism of clinical placements in aged care is just as strong which is of concern when it is known that a student's experience on any type of clinical placement has a significant impact on their future career choices (Abbey et al 2006a).

The focus so far on what is wrong with aged care clinical placements has been the timing, quality, how and where they occur (Abbey et al 2006a). If clinical placements only occur at the beginning of programs to teach 'basic nursing care' they have been found to devalue the knowledge and skill level of aged care nursing, be unfair to older people and discourage aged care as a future career choice (Mossop and Wilkinson 2006; de la Rue 2003; Ford and McCormack 2000). The quality of clinical placements is also diminished by the employment of poorly credentialed clinical teachers who are unable to inspire the students through lack of leadership and the inability to demonstrate an adequate knowledge base (Fagerberg et al 2000). Additionally, the lack of clear and realistic clinical learning objectives for the benefit of the students and the clinical teachers jeopardises the possibility of a positive experience from the beginning (Wade and Skinner 2001). Lumley et al (2000) reported that students found difficulty with the inflexible, routine care practices in residential aged care facilities which seemed to undermine standards of care. Abbey et al (2006a) closely examined the unsatisfactory or unsettling elements of residential aged care clinical placements from the perspective of students and clinical teachers. The elements were found to be unexamined assumptions about nursing's core skills; poor orientation programs; and less than desirable industry practices in addition to poorer status, income and career progression opportunities. These issues were sourced with the residential aged care sector, the students and the universities.

One logical way of improving aged care clinical placements was to undertake a stocktake of aged care within Australian university programs which has natural consequences for the students and ultimately the nursing care of older people in whatever clinical setting.

The aim of this research project was to carry out a review of the different means by which undergraduate nursing students undertake aged care clinical placements. A sound evidence base for future planning and research into aged care nursing

education has been provided from the following research questions:

How do universities define aged care clinical placements?

At what stage of the undergraduate program are aged care clinical placements undertaken?

Which health services are used for aged care clinical placements?

What issues are encountered when organising clinical placements?

What educational activities and experiences are offered by the health services?

What preparation arrangements are made for staff and clinical teachers to support and supervise students?

In what ways are students prepared for undertaking aged care clinical placements?

METHOD

The development of the questionnaire used in the research was guided by the *James Cook University aged care core component in undergraduate nursing curricula principles initiative 1 request for proposal*. This initiative was developed in response to the *Aged care core component in undergraduate nursing curricula principles paper* (Queensland University of Technology 2004) that was commissioned by the Australian Government Department of Health and Ageing. The questionnaire contained a mixture of quantitative (including dichotomous response, multiple response and Likert type questions) and qualitative (open ended

questions) items (See appendix 1). After gaining ethical approval from the authors' host university, a pilot study was conducted to assess the suitability of the questionnaire. Twenty questionnaires were distributed to a range of Australian universities. Five completed questionnaires were returned (response rate 25 percent). One amendment was made to the questionnaire as a result of the responses to the pilot study. The questionnaire item that asked how many students are placed each semester was amended from 'categorical' (eg 1-3, 4-6, etc) to 'ratio' (eg 9, 22, etc) response.

All Australian heads of faculty, department or school of nursing and midwifery were invited to participate in the project. A cross sectional, descriptive design was employed. The sampling frame involved 34 potential respondents, with 32 usable responses received.

Respondents were given the option of a telephone interview or completing a paper questionnaire. Only three chose to be interviewed over the telephone.

FINDINGS

Definition of aged care clinical placement

Respondents from all universities hold similar understandings and expectations as to what is meant by the term 'aged care clinical placement'. Responses tended to encapsulate some notion of caring for people who are over the age of 65 years or a placement where the intended client is an older person. The physical context (ie hospital, residential aged care facility) was of lesser concern than access to people aged over 65 years with a range of complex health issues.

Table 1: Type of health service used for aged care clinical placement according to the location of the university

Type of health service facility used	Location of university		Total	Percentage of respondents
	Capital city	Regional centre		
Private residential aged care facility	19	11	30	17.3
Public residential aged care facility	15	12	27	15.5
Rehabilitation unit in acute hospital	17	9	26	14.9
Community nursing agency	12	8	20	11.5
Mental health facility	15	5	20	11.5
Acute medical unit in a hospital	13	5	18	10.3
Private home nursing service	10	5	15	8.6
Acute surgical unit in a hospital	12	2	14	8.1
Other	2	2	4	2.3

Type of Health Service

The health services identified as most commonly used can be seen in table 1. The data suggest that the majority (up to 69%) of placements occurred in locations that were reasonably geographically convenient to the university the student was attending where possible. With many of the respondents being from urban universities, this limited exposure to aged care nursing placements in rural areas.

Timing and Organising Clinical Placements

Placement occurred only in the first and third years of study, with 62% of respondents reporting that students had a placement in both years. Universities reported very little difficulty in placing students for aged care clinical placements. The majority of respondents (93.8%) were either 'always' or 'very often' able to facilitate this placement. However despite reporting very little difficulty in placing students, almost half the respondents (45.5%) experienced some degree of inter-university competitiveness for the placements. This problem was more likely to be experienced in cities rather than in regional centres. It was also interesting to note that in addition to inter-university competition for aged care clinical placements there were times when intra-university competition occurred between different academic years of the same university.

Respondents (27%) reported that a common reason for health services being unwilling to provide aged care clinical placements was their existing commitment to provide placements to another university. Some universities commented on the sound industry partnerships they have with health services, perhaps to the detriment of student nurses from other universities. Another reason cited by universities was that health services give the impression that students placed a burden on resources within the service and that the process was seen as being too intrusive.

The methods used by universities to select health services for clinical placements are found in table 2. For the most part, informal assessment procedures are in place. Nearly one third of universities did not undertake site inspection of the health service prior to the student placement. Therefore self referral and canvassing for placements were important to the selection of venues for aged care clinical placement. One university was in the process of developing a clinical audit tool for assessment purposes.

Table 2: Methods used to select health service for aged care clinical placement

Assessment method	Number	Percentage of respondents
No site inspection by the university takes place	13	31.7
Assessment based on whether or not the facility is accredited	7	17.1
Assessment made as to the adequacy of staff and facilities	6	14.6
Assessment based on feedback from students or staff	5	12.2
Assessment based on a site inspection by the university	5	12.2
No evaluation takes place	4	9.8
Assessment based on whether or not the facility has a formal agreement with the university	1	2.4

Note: In cases where responses covered a variety of themes, answers have been included in more than one category

Educational experiences

Students were exposed to a broad range of educational opportunities while they were on aged care clinical placement, with dementia and palliative care featuring prominently. This was followed by wound management, infection control, community care and quality management with mental health, challenging behaviour and sleep disturbance featuring to a lesser extent.

Support for supervisory staff and students on placement

A variety of arrangements were in place for preparing staff to support students in relation to aged care theory and practice while the students were on placement. The methods used most by 68% of respondents were workshop or orientation sessions and briefing sessions. Also used were formal training sessions or lectures.

In a relatively small number of cases (10%) respondents considered that no preparation was necessary as supervisory staff were already adequately prepared for the supervision of students while on placement. This was supported by a comment that a particular university had been placing their students in certain health services for a long time and supervisory staff were familiar with course content, student needs and expectations and did not need preparatory education.

Support and supervision of students during aged care clinical placement was commonly provided by a registered nurse from the health service or a clinical facilitator employed by the university. However over 20 percent used enrolled nurses or an assistant in nursing. A few universities (8%) used their academic staff, suggesting universities play a supervisory role in a number of ways.

Qualifications and skill level of clinical educators is described in table 3. It is evident that a number of universities are forced to use clinical educators who either have experience in aged care but no tertiary qualifications or tertiary qualifications and no specific aged care nursing experience. While several respondents commented that the ideal would be for educators to have both experience and qualifications, this was not easily achieved.

Table 3: Qualifications and skill level required for clinical educators

Skill	Number	Percentage of respondents
Tertiary qualifications with experience in aged care	18	54.5
Experience in aged care with no tertiary qualifications	13	39.4
Tertiary qualifications but only general nursing experience	13	39.4
Minimum 2 years experience as a registered nurse	10	30.3
Other	8	24.2

Note: Respondents were able to select more than one category.

Student preparation

In all cases, the common view was that the theory and practical aspects of the undergraduate nursing curriculum adequately prepare students for aged care clinical placement. Examining the extent of this preparation was not covered in this study, however one university reported the completion of a unit on ageing and 93% of universities reported the main preparatory methods being lectures and tutorials that cover aged care theory and practice.

Limitations

The questionnaire was designed to elicit information from either the head of school or a person nominated by them by way of a telephone interview with the researcher. The majority of questionnaires were completed by a person nominated by the head of school and it was assumed this was the person who had the most accurate knowledge of issues around aged care placements at their university. Future studies could obtain more detail on the person completing the questionnaire to ensure they are the most appropriate person. Furthermore, most respondents stated a preference to completing the questionnaire in their own time rather than through a telephone interview. This may have reduced the richness of detail that would have been gained had interviews taken place.

DISCUSSION

Academic staff appeared to have an appreciation that nursing older people occurs across the depth and width of nursing. It was encouraging to find that aged care clinical placement occurs for most students in the final year of their nursing program and not only in the early stages for the teaching of 'basic nursing care'. The 'basic nursing care' issue has caused much concern over the years for passionate aged care academics and clinicians (Mossop and Wilkinson 2006; de la Rue 2003; Ford and McCormack 2000). However it is disappointing that universities are not more creative in accessing services that provide support for both healthy and

unhealthy older persons. Such an approach would open up valuable learning experiences if universities were to use other clinical areas such as health promotion, diabetes and continence clinics within community health care settings (Nay 2002).

The competitiveness between universities and other clinically focused health professions for clinical placement is not specific to aged care. This study has demonstrated that it is relatively easy to find aged care clinical placements however community placements and rural placements are under utilised. Despite the need for access to clinical placements, fundamental to student learning is a positive clinical experience provided by supportive role models (Nay 2004). If student nurses are seen and treated as a burden, this could have a negative impact on the aged care clinical experience which includes the older person as well as the student nurse. Chilvers and Jones (1997) suggest that universities need to collaborate more closely with staff in residential aged care facilities to enhance the learning environment.

The findings of this study support assertions by Nay (2004) that few universities use formal processes for assessing the suitability of venues for aged care clinical placement. Most universities relied on government accreditation standards. While these standards ensure certain criteria for management practices, health and lifestyle of residents and a safe physical environment (Australian Government Department of Health and Ageing 2006), they do not provide a valid criteria for selection as a suitable facility to receive students for an aged care clinical placement.

Given the problems associated with providing a negative experience for the student nurses and the possible resulting lack of interest in a career in aged care, it is of concern that health services are not being assessed adequately.

When the question was asked about what learning opportunities are available during the aged care clinical placements, it was surprising 'basic nursing care' did not appear despite it being reported as the common purpose of aged care clinical placement

(Mossop and Wilkinson 2006; de la Rue 2003; Ford and McCormack 2000). What did appear were highly complex disorders, for example, dementia and many of the chronic diseases requiring palliative care that are among the leading causes of disease burden in Australia (Mathers and Vos 2000) and complex processes such as infection control and quality management.

The provision of adequately prepared staff for the supervision of students while they are on clinical placement is an area that requires significantly more attention. The literature shows that the clinical educator role is fundamental for the creation of a quality clinical placement (Abbey et al 2006b). The Australian Government Department of Education Science and Training (2001) recommended that students are given aged care specific learning, support and appropriate supervision so they can extend their learning to a deeper level than simply 'caring for old people' and better preparing them for providing high level care. Universities are aware of the ideal but struggle to employ more suitably qualified and experienced clinical educators. This may be a reflection of a shortage of suitably qualified aged care nursing specialists overall (Nay 2002). If suitably qualified aged care nursing specialists are not available to teach aged care nursing specific subjects prior to an aged care clinical placement and be available for facilitation and support during the clinical placement, then the innovative and challenging aspects of aged care and the specialised skills required will not be appreciated by the students and thus limit the value of nursing older people.

CONCLUSION

The following recommendations are made on the basis of the findings of this study which examined the different means by which undergraduate nursing undertake aged care clinical placement in Australia. Aged care clinical placements need to be spread more evenly across health services and universities need to expand their definition to include other sites that offer aged care specific services. There could be greater use of community services and greater

use of services away from the immediate locality of the university. Using services in more rural and remote locations would require a commitment to underwrite the financial costs for student travel and accommodation. Not only would this expand the student experience, but may also help to ease skill shortages in rural areas.

A more coordinated approach to placements should be negotiated between competing universities to ensure all students have equal access to an aged care placement. The development of formal agreements between universities and health services should ease this pressure. Further, universities need to improve internal coordination of aged care clinical placements in order to eliminate conflict between first and third year placements thus maximising the educational potential. There is a need for the development of a clinical audit tool to be used across universities to assess health service suitability for an aged care clinical placement. This will ensure that students undergo similar standards of aged care clinical experience.

More support is needed from the universities so that health services are better able to support their staff in taking on students for aged care clinical placement. One way this can be achieved is for incentives to be offered to specialist aged care nurses to participate in further education, enabling them to be effective educators both in the workplace and academia. This will ensure there is a suitably qualified pool of aged care specialist nurses who can focus on the student's acquisition of high level aged care specific skills as well as on acquiring basic nursing skills. Appropriate university curricula should include specific aged care content to better prepare students for the complexity of caring for older people.

There also needs to be more promotion of aged care nursing as an appropriate career choice. If aged care clinical placements are provided in an appropriate, supported manner with supervisors who have a passion for the area, aged care may become an area of career choice for graduating nurses.

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APPENDIX 1

Questionnaire

Stocktake of existing aged care clinical placements for undergraduate nursing students in Australia

1.	How do you define aged care clinical placements within your undergraduate nursing course?
2.	Please identify which of the following health services you use to provide aged care clinical placements (please tick all that apply)
	a) Public residential aged care facilities
	b) Private residential aged care facilities
	c) Rehabilitation units in acute hospitals
	d) Private home nursing services
	e) Community nursing agencies
	f) Acute medical unit in a hospital
	g) Acute surgical unit in a hospital
	h) Mental health facilities
	i) Other (please specify)
3.	Where are these services located? (please tick all that apply)
	a) In your local health service district
	b) In your local town
	c) In the nearest city
	d) Throughout the state
	e) Interstate
4.	Are you able to place all your students for aged care clinical placements?
	a) Always
	b) Very often
	c) Sometimes
	d) Rarely
	e) Never
5.	How many student placements are normally provided by each aged care clinical placement in any semester for your students? Please specify
6.	Are there times when you are unable to place your students in aged care clinical placements due to a clash with another University?
	a) Yes
	b) No

Appendix 1, *continued....*

7. Do health services ever refuse to accept your students for clinical placements? 25
   a) Yes
   b) No

8. If yes, what reasons are normally given for such refusals?

9. Do you normally have to pay costs for aged care clinical placements?
   Yes
   No

10. If yes, in what way do health services charge these costs to the School? (please tick all that apply)
    a) Pro-rata basis
    b) Hourly rate
    c) Invoice university for secondment of staff from the facility
    d) Pre-arranged financial agreement
    e) Other (please specify)

11. What is the total cost of aged care clinical placements in any given semester?

12. Do you have selection processes that your university uses in choosing health services to provide aged care clinical placements to your students?
    a) Yes
    b) No

13. If yes, please describe these selection processes?

14. Please identify which educational activities and experiences are offered by those health services (please tick all that apply).
    a) Community care
    b) Palliative care
    c) Wound management
    d) Infection control
    e) Quality management
    f) Dementia care
    g) Other (please specify)

15. Do you have arrangements for preparing staff to support students with respect to aged care theory and practice during their aged care clinical placements?
    a) Yes
    b) No

16. If yes, please describe these arrangements.

17. Please identify the skill mix of staff involved in supporting and supervising students during aged care clinical placements from the list below (tick all that apply):
    a) Clinical facilitator employed by the university
    b) Preceptor employed by the university
    c) Registered nurse employed by the aged care facility
    d) Enrolled nurse employed by the aged acre facility
    e) Assistant in nursing employed by the facility
    f) Other (please specify)

18. Do you have arrangements in place for supervision of students undertaking aged care clinical placements?
    a) Yes
    b) No

19. If yes, please describe these arrangements.

Appendix 1, *continued....*

20.		What skills and preparation are required for facilitators?	26
	a)	Tertiary qualifications with experience in aged care	
	b)	Experience in aged care with no tertiary qualifications	
	c)	Tertiary qualifications but only general nursing experience	
	d)	Minimum 2 years experience as a registered nurse	
	e)	Other (please specify)	
21.		In which year of their education do students undertake their aged care clinical placements?	
	a)	Year 1	
	b)	Year 2	
	c)	Year 3	
	d)	In more than year	
	e)	Other (please specify)	
22.		Are clinical opportunities tailored to meet the educational level of students?	
	a)	Yes	
	b)	No	
23.		If yes, please explain how they are tailored to meet their educational level.	
24.		Do students receive preparation before they undertake their aged care clinical placements?	
	a)	Yes	
	b)	No	
25.		If yes, what preparation do students receive?	
26.		Is there anything further you would like to add about aged care clinical placements in general?	

Information literacy skill development and life long learning: exploring nursing students' and academics' understandings

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KEY WORDS

information literacy, nursing, life long learning.

ABSTRACT

Objectives
The aim of this study was to map information literacy (IL) skill development in the Bachelor of Nursing (BN) content; identify educational practices in courses to asses students' information literacy (IL) skills; explore BN students' understandings of their IL skill development; and explore students' and academics' understandings of the link between IL skills and life long learning.

Design
The study used a qualitative exploratory triangulated design using document analysis, questionnaire and focus groups to evaluate BN students' and academics' understandings of IL; IL links to life long learning; and subsequent implications for high quality evidence based practice. Thematic analysis was used to review the individual and combined sources of data.

Setting
The setting for the study was one School of Nursing and Midwifery in a South Australian University.

Subjects
Participants included 394 Bachelor of Nursing students who responded to an anonymous questionnaire and 7 academics who participated in a focus group.

Main outcomes
Changes are required to increase BN students' and academics' understandings of IL and its links to life long learning, including staff development and collaboration between academics, librarians and study advisors on the design and implementation of a consistent and progressive curriculum approach to teaching IL skills.

Results
The themes resulting from the data were: students' and academics' understanding of the term information literacy and the links to lifelong learning; the role of the library; the role of the curriculum; and the roles of lecturers and student peers.

Conclusions
Study outcomes indicated there is a need for staff development and a progressive curriculum approach to ensure students understand IL and its links to life long learning. Such approaches require collaboration between librarians, study skills advisors and academics.

INTRODUCTION

Information literacy (IL) is a central component of professional nursing practice. Nurses must know how to access information and apply knowledge to ensure best practice and life long learning. Central to initiating and sustaining this achievement is IL (Bundy 2004). Such skills are best gained in undergraduate nursing programs and continually refined by the registered nurse. Wallace et al (2000) confirm that ongoing safe, effective and flexible nursing care relies on undergraduate nursing programs including opportunities to develop and use these skills.

A key initiative of universities is to produce professionals who reflect, among other qualities, life long learning skills. Nursing academics at the study university have a long history of working closely with student services and library staff on the integration of IL principles and practices into the curriculum (Nayda et al 2007). These efforts aim to meet the IL skill development needs of all nursing students including external students and those marginalised from the mainstream, such as students who have English as another language. However neither the Bachelor of Nursing (BN) students' nor academics' understandings of IL and its links to life long learning have been explored in order to ensure the success of such initiatives. Nor has the content or consistency of the teaching and assessing of these skills been fully identified. This study sought a group of nursing students' and academics' understandings of IL and how IL related to life long learning and therefore to student success. To achieve this, the study included: mapping IL skill development content and consistency in the BN; identifying educational practices in courses to assess students' IL skill development; exploring academics' understandings of the links between IL and life long learning; exploring students' understandings of their IL skill development and skill level; and exploring students' understandings of the links between IL and life long learning.

LITERATURE REVIEW

Life long learning and IL skill development are linked and while a clear definition of life long learning is somewhat elusive it remains a key quality for health professionals as it promotes evidence based practice. Various definitions of IL have developed over time and are based on the premise of the ability to allocate, evaluate and use information effectively (Fox et al 1996). The continuity of this action is life long learning and the ongoing pursuit of personal development and excellence in professional practice. Such skills are essential for competent evidence based nursing practice and underpin the BN curriculum used in this project.

The focus of the available literature on IL includes: the impact of increasing and rapid changing technologies (McNeil et al 2002), nurses' skills and attitudes toward IL, how nurses cultivate and attain IL skills (Cheek and Doskatsch 1998), the relationship between self directed learning and IL skills (Lunyk-Child et al 2001), the implementation and evaluation of strategies and curricula content to assist with the development of IL skills (Wallace et al 2000), the impact of IL skills on life long learning and professional practice (McNeil et al 2000), students' perceptions of their own and their lecturers' IL skills (Payton 2003), the application of IL skills in graduate practice (Powell and Case-Smith 2003), the development of online supplements to support students' IL skills, and the link between IL skills and evidence based practice (Shorten et al 2001).

The literature also identifies a number of factors influencing students' IL skill development including: a lack of access to computers; inadequate knowledge of computer literacy (Jacobs et al 2002); an inaccurate assumption that all students have computer equipment and internet access; absence of coordinated approaches to teaching these skills resulting from the assumption students already have them (Wallace et al 1999); the absence of collaboration between educators, librarians and administrators (Barnard et al 2005; Whitmire 2001); increased class sizes resulting in content specific focus at the cost of 'general' knowledge; students' attitudes and backgrounds (O'Shea 2003); and lack of time to gain and maintain IL skills (Gopee 2002).

McNeill et al (2003) state that effective decision making in health care delivery relies on timely and accurate information. Nurses specifically deal with an increasing complexity of information and decision making (Barnard et al 2005). Therefore a major goal of nursing programs must include competencies for students to understand the need for increasing nursing knowledge and the role of the life long learner (Patterson et al 2002). Assisting nursing students to achieve the associated IL skills requires an understanding that such development is not extraneous to the curriculum but is woven into its specific content, structure and sequence (George et al 2001). IL cannot be the outcome of any one course but is the cumulative experience of a range of courses, activities and assessments (Bundy 2004). Barnard et al (2005) consider that an integrated curriculum approach results in advanced IL skills, increased access to and use of evidence to support decision making and a foundation for lifelong learning.

The literature asserts the importance of IL skills for nurses and raises a number of issues related to the actual development and use of these skills. Knowing how nursing students understand IL and rate their skills is essential to their development and addressing the factors influencing this development underpins their success. The BN curriculum in this project was based on the knowledge that nursing students must learn and effectively use IL skills and understand the links with life long learning and competent professional practice (Nayda et al 2007). However how well these BN students and academics actually understood these skills and their purpose and what impacts on this knowledge has not been investigated. This is the purpose of this project.

METHODOLOGY AND DESIGN

Ethics approval was received from the university's Human Research Ethics Committee. The research took the form of an exploratory mixed method approach, using both qualitative and quantitative data. Such combinations are growing in popularity and allow for comprehensive inquiry through various perspectives (Hansen 2006). A combination of document analysis, questionnaire and focus groups comprised the data collection. This paper reports on the qualitative aspects of the findings. A total of 394 internal and external BN students who responded to an anonymous questionnaire participated. In addition, seven nursing academics teaching in the BN program participated in a focus group.

Firstly, an analysis of the content and assessment strategies in selected course information books from the BN was completed. The links between the information and the concept of life long learning was also sought in this process. Then, first, second and third year internal and external BN students were informed of the project by email. One week later the internal students were provided with a hard copy of the information sheet and the anonymous questionnaire in a common lecture session. They were requested to put all questionnaires (completed and blank) in a box as they exited the lecture theatre. External students received their information sheet and questionnaire by post at the same time, including a prepaid return envelope.

Academics with various roles and experience of teaching in the BN program were then invited by email to participate in a focus group. The seven academics who responded were given a project information sheet and consent form. The audio taped focus group discussion was guided by a semi-structured interview protocol, informed by the data from the document analysis and the questionnaire. The tape content was then transcribed for analysis.

Data were recorded and analysed by: entering the findings from the analysis of the course documents onto spreadsheets and comparing content across the courses; entering responses to questionnaires onto a computerised table and identifying common themes from across this data; transcribing audio taped interviews with academics into password protected computer files; and using a thematic approach to categorize responses (Hansen 2006). Data from each stage were examined thematically and cross referenced with the other forms of data and findings. No computerised research analysis program was employed as the team aimed to fully engage with the data through manual analysis (Hansen 2006).

FINDINGS

The themes identified from the data were: students' and academics' understandings of the term IL and the links to lifelong learning; the role of the library; the role of the curriculum; and the roles of lecturers and student peers.

Table 1: Example of data contribution to theme identification

Theme: Understandings of IL and links to life long learning	'… concerned about students' assignment writing" (academic)
	"reading and comprehension and also includes writing" (student)
Theme: Role of the library, curriculum, lecturers and peers (students only)	"Library staff are too busy … I found library access difficult". "Library staff try to assist"
	"Discussions with lecturers". "Discussion with my peers".

The findings indicated that the students did not have a sound understanding of the meaning of IL. The academics who participated in the focus group also displayed a lesser level of understanding of this concept than might be expected from those teaching in a tertiary setting. Similarly the links between IL, lifelong learning and student success were not well recognised. The students related developing IL skills to gaining information from librarians, academics and their peers, rather than using online and other search strategies. In the early stages of the BN, the students were more likely to rely on their peers for assistance and in later stages of the program, on academics and library staff. The students reported that the IL curriculum in the BN, particularly in the form of assessment items, was useful in developing their skills in accessing and using literature. Although the analysis of the course information content showed that individual courses have addressed the concept and development of IL literacy, particularly within the first year of the program, the students were not provided with opportunities within later curriculum stages to validate this knowledge. Overall the data shows that a well articulated, consistent and progressive process to ensuring students developed and used IL skills effectively did not exist with the BN curriculum.

DISCUSSION

Understanding the term IL and links to life long learning

The literature strongly advocates the link between IL, life long learning and best standards of practice (Payton 2003; Powell and Case-Smith 2003; McNeil et al 2002; Shorten et al 2001; Lunyk-Child et al 2001; Wallace et al 2000). However the responses from the students in this study show they did not have a comprehensive understanding of the term information literacy or of the associated skills. This was despite the fact they had completed a course with a significant focus on the development and application of IL skills (using this terminology) and the demonstration of these skills as an assessment item at the beginning of the BN. Given this assumed knowledge the project team did not clarify the meaning of the term with the students prior to the data collection and the students' inadequate understanding was an unexpected finding. One student's comment provides insight into other students' understanding of IL as: *"… reading and comprehension… it also includes writing"*. Information can be mistaken for other meanings such as literacy itself and this misconception may extend beyond the students (Nayda et al 2007).

The participating academics also described various understandings of the term information literacy. They related the term to general literacy and therefore to skills associated with writing good quality assignments (Nayda et al 2007). Hence the academics' rating of students' skills focussed on the general written quality of assignments rather than their access to and use of information. The meaning of 'information literacy' was not clarified with the academic participants prior to the focus group commencing as again it was expected they would be familiar with the term. The researcher consistently redirected the focus group talk to 'information literacy', however, the academics' responses to questions continued to relate to general literacy.

This highlights the probability that while the action of finding and using online information is used at various levels this is not necessarily known as 'information literacy'. Misunderstandings of the term may be more widespread than expected and 'literacy' may be the focus and the practices described and assessed (Nayda et al 2007). Such actions are likely to increase confusion for students and negatively impact on the development of IL skills and subsequently the quality of practice.

Role of the library

The successful development of students' IL skills lies is in recognising that not all students enter tertiary studies with knowledge of computers and how they assist in searching for information. An assumption that students already have these skills is likely to result in an uncoordinated and reactionary approach which can significantly disadvantage students (Wallace et al 1999). Students' IL success depends on collaboration between relevant university staff such as academics, library staff and student services, and the provision of and access to adequate facilities (Barnard et al 2005; Whitmire 2001). While all students may experience difficulties, in this study the concerns about accessing the library or library staff came largely from external and first year students. External students can register with the Flexible Information Service of the Library but may still experience barriers to their IL development due to their physical distance from the university and their student peers. This is consistent with other findings in the study where external students reported feeling isolated from each other and the university. One student described the impact of isolation from the university:

I have a two year old, a nine month old, a husband that works full time, no access to a computer and a public library that varies from day to day. The only time I can access a computer and the internet is when I travel to my mums, two hours away.

Student participants in this study had access to group and one to one sessions in the library to assist them to develop and use information searching skills, however these did not appear to meet their needs. The students were more likely to arrive at the library at another time and expect librarians to be available. Alternatively they used information from journal articles supplied by other students. The perceived effectiveness of strategies such as group and one to one sessions is dependent on the students' understanding of the importance of information but as a graduate working in a professional context. For example, the student participants knew of the need to access and use journal articles to complete and pass assignments, but did not necessarily link this skill to their ongoing development as professionals, or to the quality and legal boundaries of their practice. Students also knew of 'Infogate' (the online information literacy tutorial) and saw this as useful, however surprisingly did not necessarily access the resource. Some students preferred to rely on direct assistance from librarians, but also commented that library staff were often too busy at the time they wanted assistance. Where first year students seemed more reluctant to seek assistance from academics and library staff and would rely on peers and other means of finding data, more senior students were likely to communicate with these staff to gain some type of assistance. Whitmire (2001) found that engagement with librarians and lecturers resulted in students having greater satisfaction with their IL skills.

A number of student participants displayed a limited understanding of the role of the library in IL skill development. For example, in some cases there is an expectation that library staff will assist them to find relevant articles to complete a current assignment rather than the student learning long term skills to complete all assignments and ultimately practice safely. One student's comment of *"…I figured it for myself…"* echoed the statement of others. The focus was on solving the current assignment problem and hence the situation re-emerged at the writing of the next assignment. Subsequently there is a need to broaden students' knowledge of the value of IL as a life long learning skill and as part of professional expectations.

Role of the curriculum

Students identified a number of factors as best assisting them with their information searching skill development. They considered a significant percentage of their success was attributed to the IL content and assessment in course materials. Indeed, the data from stage 1 of the project shows that students are involved in a range of information literacy tasks across the BN program. However it is evident from this data that a progressive and orchestrated process that ensures students develop IL skills does not exist. Further, strategies tend to be reactive rather than proactive when students' IL skills do not reach expectations. This is likely to be in part due to the increasing complexities of the academic environment and the widening scope of curricula which must increasingly contain educational as well as professional content. In addition, curricula must meet the needs of students from diverse cultural backgrounds as well as increasing internationalism (Meldrum and Tootle 2004). Teaching IL requires an understanding that such development is not extraneous to the curriculum but is planned and woven into its content, structure and sequence. It may be discipline specific (George et al 2001) but it requires an accumulative experience through a range of courses (Bundy 2004). Shorten et al (2001) confirm that such integrated approaches result in students having a positive outlook on their achievements.

Role of lecturers and peers

Students identified that a large contribution to their IL skill development came from the university lecturers and also their student peers. This supports that students preferred episodic assistance from more easily accessible sources to finish the assignment at hand, rather than through more formal information seeking strategies that will contribute to life long learning skills and best practice. The influence of peers in assisting students to develop and maintain IL skills cannot be ignored and supports the concept that all students must be well educated about IL so appropriate information is shared. Similarly, a consistent understanding of the term 'information literacy' and a consistent effective approach to

teaching and learning these skills is essential. The literature reports little about the impact of peer learning on IL skill development but the value of lecturer involvement is clearly positive and essential (O'Shea 2003).

IMPLICATIONS FOR PRACTICE

In the health professions, in this case nursing, information literacy skills are the foundation for students' success and an essential component of successful and safe evidence based practice. However misunderstanding of the term 'information literacy' and neglecting to link IL skills with life long learning can have a significant impact on the perceived value of these for the profession, the quality of its professionals, and their ongoing practice.

Program content

IL skill development is a constituent of any level of study, not only at undergraduate level. Nursing is just one of the professional groups which should ensure their workforce is well equipped to access, decipher and use the latest available information. Understandably, undergraduate study is best placed to commence teaching an understanding of the concepts, values and the skills involved in IL. Taking the specific need of all students into account, one strategy could be to develop and apply a transparent and staged model of IL skill development across undergraduate programs. Such a model should begin from an understanding of the link between IL and life long learning and include a sequential building of skills that ensures a graduate whose practice is continually evidence based. That is, the model must be transparent and include increasing complexity of layers across the program resulting in a high level of IL skill at graduation.

Collaborative strategies

Strategies that build students' IL skills must include collaboration between librarians, study advisors and academic staff (Nayda et al 2007; Whitmire 2001). The results from this study have been shared with library staff with a view to developing more successful models to assist students to grasp the importance of a long term understanding and use of

IL. Successful strategies will consider: the best use of resources; the availability of staff and computers; the difficulty in accessing and understanding online environments; employing strategies that increase students' independence and self directed learning; and meeting the needs of various student backgrounds including mature age students, school leavers, on shore international students and distance education students.

Preparation for clinical practice

While universities can address shortfalls in preparing nursing students with a high level understanding of IL skills, health organisations also have a responsibility in further facilitating these skills throughout the graduate year and beyond. Liaison between university teachers and graduate nurse program facilitators can result in strategies aimed at continuity and consolidation of IL skill development and implementation for the beginning practitioner. The outcome of such initiatives will include a highly informed workforce, well prepared clinical preceptors for future students and professional advancement.

CONCLUSION

It is a significant concern when student nurses have not grasped the value of IL, its links with education success, and its role in maintaining professional knowledge. In addition these skills assist compliance with legal requirements in nursing practice. While a number of factors influence the development of these skills the impact of curriculum philosophy and design cannot be underestimated in motivating and guiding students' thinking. Similarly educators' knowledge and teaching processes play an important role in assisting nurses to develop these responsibilities and skills. Changes are essential to improve the IL skills and understanding of these students and academics through: staff development; collaboration between academics, librarians and study advisors; and the design and implementation of a consistent and progressive curriculum approach to teaching and assessing these skills. Such activities need to be cognisant of increasing demands on academics' time and other resources.

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How do university clinical school of nursing graduates choose their graduate nurse year program?

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KEY WORDS

Graduate nurse year program, undergraduate nurses, clinical schools

ABSTRACT

Objective

To assess the decision making process of nursing undergraduates when choosing a graduate nurse year program and to explore whether clinical school experience affects the decision making process.

Design

A descriptive exploratory survey was distributed to all nursing graduates (n=166) from one cohort (single year) three months after completion of their course at a metropolitan university in Victoria, Australia. This cohort of students attended either of two metropolitan clinical schools and approximately 37.9% returned (n=62) the survey within 2 months of initial mail out. Responses from this cohort were assessed in relation to how preferences were ranked in choosing a GNY program.

Setting

The setting was a metropolitan university and two metropolitan clinical schools of nursing in Victoria, Australia.

Subjects

Nursing graduates (166 with 62 participating).

Results

Data from respondents indicated that the overall experience at the clinical schools was positive with 59.7% (n=37) stating it was very good and another 35.5% (n=22) stating it was good. The majority of respondents (82.3% n=51) received their first preference however only 22.5% (n=14) chose to return to their original clinical school for their graduate nurse year program. Reasons for not returning to their clinical school included: nursing specialisation, support, rotations offered, past clinical experience, and ongoing career prospects.

Conclusion

The high percentage of respondents receiving their first preference for GNY programs suggests the clinical school model for undergraduate nursing students is highly valued by hospitals and health care networks. In addition, undergraduate nursing students are choosing which GNY will best suit their present and future career needs, regardless of past (positive) experience in a clinical school. Choice of GNY is strongly associated with past clinical experience and nursing specialisation offered. This is of value to health care institutions or hospitals when developing or promoting their GNY program or undergraduate study programs to potential employees or students.

INTRODUCTION

Divisions or schools of nursing and their industry partners invest substantial time, money and effort in providing innovative clinical experiences for undergraduate nursing students and especially those in their the final year of education. During this final year, students make important decisions about where to work once registered as a nurse and commonly choose a graduate nurse year (GNY) program to facilitate their transition from university to workplace. This study assessed the decision-making process of undergraduate nurses when prioritising graduate nurse year programs and the effect their attendance at an integrated clinical school of nursing had on influencing their choice of GNY.

BACKGROUND

The establishment of partnerships between academia and practice environments are integral to the development of undergraduate nursing students in the transition process from university to newly graduated registered nurse (Herdrich and Lindsay 2006). Universities both nationally and internationally (and their schools or divisions of nursing) have varying degrees of affiliations with acute care hospitals so the majority of clinical placements can be offered at the one facility (Burns and Paterson 2005) allowing for continuity and consistency of clinical placement. These affiliations provide the university with certainty of clinical placements and the hospitals with a chance to promote themselves as an employer of choice to potential future employees.

A further step beyond simple affiliation is the establishment by universities of clinical schools of nursing co-located within an acute care hospital. The programs offered at the clinical schools of nursing to undergraduate nursing students require nurse academics to not only teach theoretical units of study at the affiliated hospital but also have active input into a student's clinical placement. This facilitates integration between clinical and theoretical experience as it allows the undergraduate nursing students the opportunity to refine essential skills for practice whilst still supported by university academics and mentors.

This approach necessitates the investment of substantial time, money and effort from both the university and affiliated hospital. A return on investment for the hospital would be for students to return after obtaining their nursing registration to continue this relationship through choosing to participate in a graduate nurse year program based at the university affiliated hospital.

Newly graduated nurses frequently choose to participate in a GNY program to support them during their first year post registration. The worth of graduate nurse year programs was supported firstly by Benner (1984) who postulated that the transition from newly graduated nurse to being a competent nurse takes 18 months to two years practice (Benner 1984). However not all GNY's are the same, as there are numerous formats of support and opportunity with an ever-increasing number of hospitals and health care networks nationally and internationally for the nursing graduate to choose from.

The process of choice of GNY programs within Victoria, Australia is streamlined to one centrally located GNY allocation service called Graduate Nurse Program Computer Match Service (Postgraduate Medical Council of Victoria Inc 2007). This system allows the students only four ranked preferences for their first year of employment and requires the undergraduate nurse to make complex decisions as to where they should apply. This decision potentially has long lasting implications in relation to career prospects as choosing the 'right' GNY can not only assist in the transition stage of their career but also establish them for the future. Newly graduated nurses desire to obtain their first choice of GNY, but this also depends on how the chosen health care networks have ranked the applicant based on their interview processes. This ranking is analysed centrally and the nearest match, (if at all), is determined by the system and forwarded to both the successful applicant and the health care network. The better prepared the undergraduate nurse is at interview, through not only academic grade but also clinical reasoning and experience, the more likelihood of success for obtaining their first preference for GNY.

Despite the best efforts of participating universities and their industry partners, undergraduate nursing students who have attended clinical schools at affiliated hospitals still choose to go elsewhere for their graduate nurse year program.

OBJECTIVE

The objective of this study was to assess the decision making process of nursing undergraduates when choosing a graduate nurse year program and to explore whether clinical school experience affects the decision making process.

DESIGN

A descriptive exploratory survey study was developed after initial feedback from focus groups (n=80) into the university clinical school model. The focus groups highlighted re-emerging themes related to clinical school experience and choice of GNY. From these themes, a nine point questionnaire was developed to examine how nursing and midwifery graduates from the university's two metropolitan clinical schools choose their GNY.

Approval was given by the Faculty of Health Sciences Ethics Committee for a qualified user to obtain from the university data base a list of students and their addresses who had attended either metropolitan clinical school from the previous year. Each student listed was sent a letter outlining the study which included a detailed Participant Information Sheet titled 'How do university clinical school of nursing and midwifery graduates choose their graduate year program 2006' and the University School of Nursing and Midwifery Graduate Placement Survey 2006, as well as a return addressed pre-paid envelope for return of the survey.

Data collected included: the clinical school the graduate attended; how the student rated the clinical school experience; how the graduates prioritized their preferences for a GNY program; the location of successful offers of a GNY program; whether or not this was the student's first preference; and where the nurse was going to participate in a GNY program. A five point Likert scale was used for responses from excellent to very poor in relation to supervision, support and experience. Decisions about GNY preferences were ranked 1-6 according to self-determined influences. In addition, data was collected about where the student's clinical school (if at all) appeared in their list, anywhere from 1st -4th place, including no match and undisclosed. The final question asked: "If the student did not choose their clinical school, why?"

ETHICAL CONSIDERATIONS

The university's Human Ethics Committee approved the research study. A plain language participant sheet was distributed with the questionnaire to explain the purposes of the study and to assure participants of anonymity and confidentiality. No coercion was used to induce nurses to take part and there were no foreseeable adverse consequences of participating this study.

DATA ANALYSIS

Data obtained from the questionnaires was analysed using the software package SPSS for Windows Version 14. Frequencies of distributions were calculated for all measures to check accuracy of data entry. In addition, standard descriptive analyses were used to examine the influences of the undergraduate nurse's decision-making when choosing a GNY.

FINDINGS

Clinical School experience

Data from respondents indicated that the overall experience at the clinical schools was positive with 59.7% (n=37) stating it was very good and another 35.5% (n=22) stating it was good with only 1.6% (n=1) stating it was poor (see table 1).

Table 1: Clinical school experience (both schools)

Response	Frequency	Percent
Very good	37	59.7
Good	22	35.5
Satisfactory	1	1.6
Poor	1	1.6
N/A	1	1.6
Total	62	100.0

Graduate Nurse Year

Of the respondents, 82.3 % percent (n=51) received their first preference (see table 2); 33.85% (n=21) placed their original clinical school as their first preference, however 30.85% (n=19) did not even rank their clinical school within their four possible choices (see table 3); and only 22.5% (n=14) returned to their original clinical school for their GNY program (see table 3).

Table 2: Was your GNY your first preference?

Response	Frequency	Percent
Yes	51	82.3
No	11	17.7
Total	62	100.0

Table 3: Where did you place your clinical school in your preferences?

| Preference | Clinical school | | Total |
	A1	A2	
1st	5	16	21 (33.87%)
2nd	8	4	12
3rd	1	6	7
4th	0	1	1
N/A	0	0	1
No match	7	12	19 (30.64%)
Undisclosed	0	1	1
Total	21	40	62

Prioritisations for GNY

Respondents indicated that the number of rotations (80.64% n=50), support (79.03% n=49), location (70.96% n=44), available nursing specialisations (59.67% n=37), past clinical experience (43.54% n=27), and future career opportunities (16.12% n=10) (see table 4) influenced their decision to choose a GNY program.

Table 4: How did you prioritise your preferences?

Priorities (not ranked) for GNY		
Reason	Frequency	Percent
Rotations	50	80.64
Support	49	79.03
Location	44	70.96
Nursing specialization	37	59.67
Clinical experience	27	43.54
Future career possibilities	10	16.12

Why clinical schools were not chosen for GNY

The top four reasons for not choosing the original clinical school were: lack of nursing specialisation that the undergraduate was interested in, such as midwifery or women's health (33.87% n=21); poor clinical experience (17.74% n=11); location (too far) (17.74% n=11); and too few rotations (12.9% n=8) (see table 5).

Table 5: Reasons for not choosing clinical school

Reason	Frequency	Percent
Nursing specialization	21	33.87
Clinical experience (poor)	11	17.74
Location	11	17.74
Rotations (too few)	8	12.90

DISCUSSION

This survey demonstrates that undergraduate nursing students have very clear ideas on why and how they choose a GNY. Determents of preference for a particular GNY program is strongly associated with the undergraduate students view of what will best suit their present situation and future career needs and with past clinical experience be it good or poor.

Clinical School Experience

The overall undergraduate nursing experience at the clinical school was positive (see table 1), making such models very attractive to universities wanting the best possible overall theory and clinical integration. This positive experience of clinical schools was reflected in other similar international models (Moscato et al 2007; Campbell and Dudley 2005). Moreover, although not all undergraduate students chose to return to their respective clinical schools for their initial first year of employment, the overall positive experience of the clinical school maybe an indicator of future employment for those who chose not to return initially.

Clinical Experience

The view that past clinical experience either positively or negatively influences future employment choices is well supported in the literature (Hartigan-Rogers et al 2007; Andrews et al 2005; Lea and

Cruickshank 2005; Heslop et al 2001). A positive clinical experience will provide the undergraduate with not just future employment possibilities and opportunities but may also influence future post graduate education choices.

First preferences

The high percentage of respondents receiving their first preference and the overall positive experience of the undergraduate nursing students within the university's clinical nursing school model, demonstrates the importance and value of this model. The clinical school model, which integrates theory with practice and provides consistency in clinical placement, may also benefit the nurse when seeking future employment. Most interviews for nursing positions take into account not only clinical skills, but decision making and an ability to work within a team (Asselin 2006; Carson et al 2005; Sirgo and Coeling 2005; Puetz 2005; Iacono 2004), attributes likely to be gained with the clinical school model.

Nursing specialisation

Opportunity for specialisation appears to be a very important to nurses (Puetz 2005; Kalisch 2003). Despite the fact that both clinical schools in this study are major tertiary hospitals with a wide variety of nursing specialties to choose from, they did not provide specialisation or experience in women's health, maternity, neonatal, or large paediatric wards; a preference for these specialisations was reflected in the responses to the survey and correlated with GNY placement preferences.

LIMITATIONS

Even though the response rate was within acceptable limits, an increase in participation rate would provide a greater understanding of this cohort's experience in the clinical schools and whether this affected their decision making process for GNY.

CONCLUSIONS

The high percentage of respondents receiving their first preference for GNY programs suggests the clinical school model for undergraduate nursing students is highly valued by hospitals and health care networks. In addition, undergraduate nursing students are choosing which GNY will best suit their present and future career needs, regardless of past (positive) experience in clinical schools. It is also evident that choice of GNY is strongly associated with past clinical experience and nursing specialisation offered. This is useful information for health care institutions or hospitals in tailoring their GNY program or undergraduate study programs to potential employees or students.

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Mature learners becoming registered nurses: a grounded theory model

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KEY WORDS

Qualitative research, grounded theory, nurse education, mature aged students

ABSTRACT

Objective
This study describes how mature aged people reconstruct themselves as nursing students.

Design
This is a constructivist grounded theory study that used grounded theory methods of concurrent data generation and analysis, coding, developing categories and memoing.

Setting
The study was undertaken at the rural campuses of two major Australian universities. The universities were in two different states of Australia.

Subjects
Data were gathered through semi-structured interviews and focus groups over an eighteen month period between January 2006 and June 2007 with fourteen mature aged undergraduate nursing students. These students were in the second or third year of three year baccalaureate degrees that led to registration as registered nurses (titled Registered Nurse Division 1 in the state of Victoria, Australia). Participants' backgrounds were all slightly different. Two participants were currently employed as enrolled nurses (titled Registered Nurse Division 2 in the state of Victoria, Australia). Three participants were married, two were supporting parents and one participant was in a committed defacto relationship. Only one participant had no children with other participants having between one and seven children aged between one week old and twenty years.

Results
This study found that mature aged students experienced three stages in their trajectory of *Becoming a registered nurse*. These phases were called: *Taking the first step; Keeping going;* and finally, *Letting go and moving forward*.

Conclusion
Mature aged undergraduate student have different needs to younger students including academic and pastoral support, on campus subsidised childcare and creative timetabling. During each phase of their university journey mature aged undergraduate nursing students developed different skills and knowledge and identified different needs that resulted in both professional and personal growth.

INTRODUCTION

The traditional path to a university degree, broadly defined as enrolling in university immediately after secondary school and attending full time until graduation, has changed markedly in the last decade in Australia. Flexible modes of entry to university have contributed to a shift in student demographics, with secondary school results no longer offering the only means of gaining a place at university. Flexible admission policies at many universities give a wide range of admission options acknowledging previous educational qualifications and life skills. Acknowledgement of prior learning can also affect the length of study required to complete a course as exemptions may be granted based on previously completed coursework or skills attainment. The combined effects of flexible access policies, recognition of prior learning and flexible delivery courses, have contributed to the increase in mature aged students returning to study.

There is evidence to suggest that globally, mature aged students now account for more than half of all students enrolled in baccalaureate nursing programs (Australian Bureau of Statistics 2008; Malone 2005; Buchan and Seccombe 2003). Little research has been undertaken to examine how mature aged students reconstruct themselves as undergraduate nursing students with much of the literature discussion relating to the old apprenticeship style of education rather than university education (Lamond and London 1976; Mauksch 1963).

LITERATURE REVIEW

Although there is a paucity of literature available explicating the journey undertaken by mature aged students when they undertake a baccalaureate nursing course, there is evidence to suggest that mature aged students are in transition during their undergraduate nursing studies (Birks et al 2006; Tindle and Lincoln 2002; Dalziel and Peat 1997).

Transition is of course an expected part of life. Numerous developmental and transitional theorists, such as Levinson, Havighurst, and Erikson, have explained the developmental tasks that adults need to achieve to enable them to successfully grow. Whilst these theorists suggest that transition from one developmental stage to the next is dependent upon the positive resolution of a crisis, the developmental crises are also age related (Baum 1997). Sargent and Schlossberg (cited in Kerka 2003) however, suggest that adult behaviour is determined by transition, rather than age. Schlossberg's model of social interaction characterises transition in terms of its type, context and impact, viewing transition as needing to be examined from interacting variables (Schlossberg1981). Therefore the experience of transition is concerned with dealing with change, which requires the individual to engage in adaptable and flexible behaviours. The mature aged student participating in tertiary study has undergone, and continues to experience transition, resulting in the formation of new behaviours, relationships and self concept (Schlossberg 1981). This transitional period requires not only academic adjustment but also social and psychological adjustment. Previous studies of mature aged students transitioning into university identify common themes of feelings of isolation and alienation, fear of failure and minimal confidence in academic abilities, coupled with high levels of motivation and personal reasons for undertaking the course (Leder and Forgasz 2004; Katanis 2000). Moreover this transitional period is often explained by mature aged students as a 'them (meaning traditional students) and us' situation (Risquez et al 2007/2008; Wilson 2002).

Holland (1999) asserts that this transitional period has been ill-defined in the past and there is the potential for role conflict for many students working in the health care sector. Greenhaus and Beutell (1985) insist that work and family lives are co-dependent and that conflict arises when there are high demands placed on both roles. Indeed the literature concerning mature aged students in university identifies role conflict as being a significant issue for mature students (Broadbridge and Swanson 2005; Bolam and Dodgson 2003). Life transitions then, are personal, process oriented experiences that are context dependent and which rely on the individual's coping skills to achieve satisfactory

outcomes. For most mature aged students, a university level of study will generate changes that can have significant transitional effects on their lives and the lives of their families.

METHODOLOGY

Grounded theory methods of constant comparison of data, memoing, theoretical sensitivity and theoretical sampling used in this study were based on those described by Charmaz (2006). Constructivist grounded theory (GT) is an interpretive research methodology that uses the constant comparative method to reduce data and develop categories and codes (Mills et al 2006). In this study, data collection and data analysis occurred concurrently but also cyclically. Initially data was compared with data and categories constructed. Data were then compared to categories and further codes and categories were developed. Eventually codes were saturated and their relevance among the other codes became apparent resulting in the construction of theoretical properties. Finally a core category which the other categories connected to was constructed. Memos consisted of theoretical notes about the data and their conceptual connections and were written throughout the research process. Charmaz (2006) contends that memoing provokes analyses and coding early in the research process. Birks et al (2008 p.68) concur, stating *"memoing serves to assist the researcher in making conceptual leaps from raw data to those abstractions that explain research phenomena in the context in which it is examined."* Memoing is a flexible strategy influenced by the researcher's abilities as well as the aims and focus of the research (Birks et al 2008). *Becoming a registered nurse* was the core category constructed from the data.

Participants were recruited from the rural campuses of two Australian universities. These universities were in different states but had similar demography. Six participants were initially recruited and interviewed from University A using a process of self-selection against predetermined criteria. The predetermined criteria for participants were that they must be over the age of 21; enrolled in an undergraduate degree that led to registration as a nurse with a state nursing licensing board; and be in the second or third year of study. Participants from University B were recruited to test the constructed conceptualisations. Two focus groups with four participants were undertaken at University B.

FINDINGS

In this study the core category constructed from the data is *Becoming a registered nurse*. For mature aged undergraduate nursing students *Becoming a registered nurse* involved a transitional journey of three phases. These phases or subcategories were called: *Taking the first step; Keeping going*; and finally, *Letting go and moving forward*. At the centre of the constructed grounded theory model was the desire to be a registered nurse. This desire was apparent throughout the mature aged undergraduate students' journey.

Taking the first step marked the beginning of the students' university journey. To move through this stage of the journey mature aged students needed to meet the academic criteria for enrolment at university. Once enrolled, mature aged undergraduate students needed to develop skills, for example time management, and organisational, academic and study skills to maintain their enrolment. A stable home environment and supportive academic staff facilitate the development of skills.

Keeping going was the second sub-category of *Becoming a registered nurse* and was characterised by students developing the self, refining existing, and learning new coping strategies. Developing the self concerned personal development and included increasing self esteem and self confidence through positive affirmation from academic staff. At this stage mature aged undergraduate students were found to possess intrinsic motivation. Intrinsic motivation was described as an inner drive to want to achieve. This motivation was a force in helping mature aged undergraduate students to overcome challenges. Additionally it was important that mature aged undergraduate students were able to maintain a balance between study, work and home

to facilitate achievement and enjoyment in all three aspects of their lives. It was found that mature aged undergraduate students refined previously developed coping strategies and developed new coping strategies at this time to reduce stress and cope with personal crisis. A high level of self awareness and the ability to problem solve were evident as mature aged undergraduate students demonstrated the ability to identify problems, select an appropriate course of action, implement a solution and then evaluate the outcome when dealing with personal crisis.

The final subcategory of *Becoming a registered nurse* is *Letting go and moving forward*. There are two aspects of *Letting go and moving forward:* finding employment; and creating distance and becoming autonomous. Finding graduate employment occurred just prior to the student completing their course and applying for licensure as a registered nurse. At this stage students identified potential employers and submitted applications. It was a time of significant anxiety for the mature aged student and family support was important to provide emotional support and help with home commitments. The flexibility of the family unit to relocate geographically provided employment options. Finding graduate employment allowed students to move forward into their new role of registered nurses and led students to create distance between themselves and their university cohort while becoming more autonomous in their thinking about nursing as their chosen profession. Creating distance occurred as students began disconnecting from university, focusing on future goals and spending less time with university friends. Creating distance was a purposeful act rather than a natural process and participants spoke of reflecting about how they would do this and the impact it would have for them. Students needed confidence to create distance as they were leaving a safe known environment to enter an unknown environment. Autonomy developed as students took control of their futures. Creating distance for some students meant creating distance from the friends they made at university. Students who knew they would be leaving the area and going to an environment where others from their cohort would

not be going began to disengage from their friends prior to completing university. This need to create distance from friends for these students was related to their belief that they needed to find other support mechanisms in their new environments rather than rely on former supports used at university.

The grounded theory model constructed from the data and illustrated in figure 1 shows that wanting to be a nurse is at the core of *Becoming a registered nurse*. Wanting to be a nurse precipitates taking the first step toward becoming a registered nurse. An arrow leading from the core into the spiral traces the three phases required of the mature aged student to achieve this process. Stepping through each one of these phases results in the core category of the grounded theory which is *Becoming a registered nurse* which provides an end point for the spiral.

DISCUSSION

Schlossberg et al (1995) promulgate that transition consists of a series of three phases they termed: *moving-in, moving-through and moving-out,* and that a person's ability to cope with transition is influenced by four major sets of factors. They termed these factors: *situation, self, support, and strategies*. Applying this to mature aged undergraduate students it can be seen that the outcome of the mature aged undergraduate students' return to study and how the period of study is managed will be affected by their support, resources, problem solving, coping mechanisms and their personal strengths and weaknesses. Managing transition is a process that occurs over time. Schlossberg et al (1981 p.27) define transition as "*any event or non event that results in changed relationships, routines, assumptions and roles*". While transition generally leads to growth in individuals, transition can also have a negative outcome. The mature aged undergraduate students in this study all experienced personal growth and change across all aspects of their lives so accordingly it can be seen they have been in a transitional period in their lives.

Taking the first step marked the beginning of the students' university journey. The process of

commencing university meant that the mature aged undergraduate students had entered a new phase of their lives; they had left behind their known 'worlds' and entered the university sphere. This moving-in began a process of transition where the mature aged undergraduate students adopted new responsibilities, roles and formed new relationships. During the moving-in process mature aged undergraduate students needed to learn how to be students. Furthermore, they had to develop academic skills such as note taking and writing assignments as well as learn the routines and procedures of university.

Figure 1: A grounded theory model of Becoming a Registered Nurse
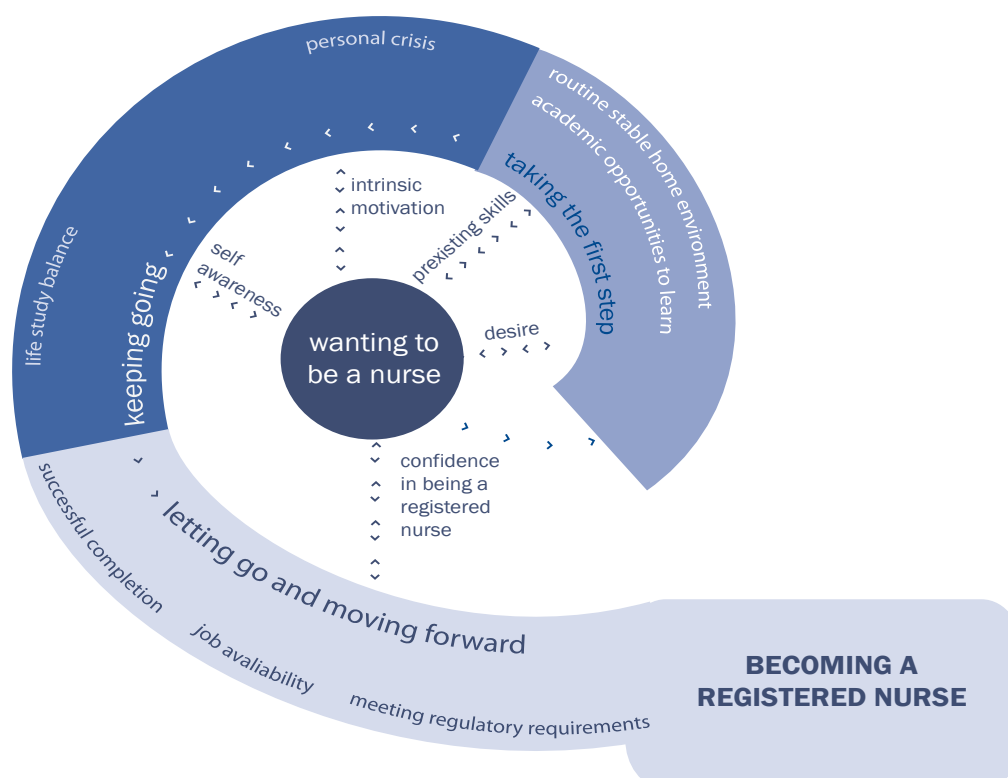
Following the moving-in process a period of adjustment to university ensued. This period of adjustment was followed by the moving-through process. *Keeping going* aptly described the moving-through phase; moving through involved participants *keeping going* despite challenges and problems. There were numerous tasks that needed to be completed during the moving through phase, for example students needed to become adept time managers, sharpen academic skills, manage personal crisis and challenges and find their place within the university. At the same time students had to mange changing roles within the family, balance study, work and leisure and quite often work in paid employment as well.

Letting go and moving forward is synonymous with Schlossberg et al's stage of moving-out. In this study moving out focused on students examining what they would do next. Moving out entails disengagement from university but there was also a sense they would begin a new phase and therefore start a new transitional process as part of moving in to their new jobs. Indeed one student actually confirmed being in a transitional period on completing university. Champagne and Pepitas (1989) suggest periods of transition are interspersed with periods of anxiety as adjustment to change occurs. Again anxiety concerning disengagement and lack of confidence is consistent with what students in this study articulated and is evident in the case of the two students who were working part-time on graduation.

RECOMMENDATIONS FOR PRACTICE

The findings from this study identify the need for mentoring programs whereby senior mature aged undergraduate students mentor junior mature aged undergraduate students. It is recommended that student support programs and or information packages are developed that include information concerning finances, academic matters, personal counselling and childcare. Professional career services should be available to students particularly in the final transitional stage of completing university and beginning employment; *letting go and moving forward*. Implementing strategies to support mature aged students appropriately during their university journey may lead to increased retention of this cohort and improve the mature aged undergraduate nursing students' experience of university.

LIMITATIONS OF THE STUDY

This is a qualitative constructed grounded theory study; therefore findings are not generalisable. A further limitation of the study is the relationship that the researcher had with both universities. At University A the researcher was a staff member and at University B the researcher was a higher degree student. The study was carried out in geographical disparate sites, which place an additional limitation on the study. Data may have been different if collected at universities in the same state. Furthermore, a limitation is that the initial sampling all occurred at one site with the second site being used to test out the constructed conceptualisation. The data may have been different if sampling and focus groups had been carried out across both sites.

CONCLUSION

It is important to understand and generate knowledge about the complexity of being a mature aged undergraduate nursing student in a rural Australian university since this cohort now makes up over 50% of all enrolled students. Although universities have made many changes in the last few years they still continue to be organised and timetabled based in the belief that most students are school leavers.

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Effect of music on preoperative anxiety in men undergoing urogenital surgery

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KEY WORDS

Preoperative anxiety, music therapy, urogenital surgery, nursing

ABSTRACT

Objective
The purpose of the current study was to investigate the effect of music therapy on preoperative anxiety levels in Turkish men undergoing urogenital surgery.

Design
The study employed a quasi-experimental design. Patients were selected using randomized controlled sampling.

Setting
The study was conducted in a urology clinic in Aziziye Research Hospital, Süleyman Demirel Medical Centre, Atatürk University, Erzurum, a city in the east of Turkey.

Subjects
The study was conducted with a total of 64 patients; 32 in the experimental group; 32 in the control group; aged between 18 and 65; and able to speak, read and write Turkish.

Intervention
The control group received routine preoperative care while the experimental group listened to their choice of music for 30 minutes in their room while they awaited surgery.

Main outcome measures
Pre and post test anxiety was measured using the State Trait Anxiety Inventory (STAI) to assess anxiety before and after listening to the music preferred by the patient.

Results
Anxiety score averages between the groups following the music therapy were statistically significant (p<0.001); 33.68 (SD=8.03) for the experimental group and 44.43(SD=10.42) for the control group.

Conclusions
These findings support the use of music as an independent nursing intervention to manage preoperative anxiety in patients undergoing urogenital surgery. Listening to self-selected music during the preoperative period can effectively reduce anxiety levels and should be a useful tool for preoperative nursing.

INTRODUCTION

Anxiety is a common phenomenon among hospitalised patients (Wong et al 2001) and is an emotional state characterised by feelings of tension, nervousness, worry, apprehension and with heightened activity of the autonomic nervous system. Anxiety has both psychological and physical effects. The psycho-physiological stress response involves activation of the hypothalamic-pituitary-adrenal axis and the sympathetic nervous system and is characterised by increased heart rate, blood pressure and cardiac output (Bally et al 2003).

Anxiety is expected in preoperative patients; the incidence of preoperative anxiety is reported to range from 11% to 80% among adult patients (Caumo et al 2001). Preoperative patients awaiting elective surgery, such as urogenital surgery, report worrying about prostate cancer and deterioration in sexual performance (Leinon and Leino-Kilpi 1999). Preoperative anxiety correlates with a high incidence of post operative pain; an increase in analgesic and anaesthetic requirements; and delayed recovery and discharge from hospital. In addition, anxiety may influence adversely the induction of anaesthesia and its recovery and decrease patients' satisfaction with their peri-operative experience (Agarwal et al 2005). Thus, creative and supportive interventions by nurses during these uncertain and uncomfortable waiting times may be important in ameliorating distress and improving health outcomes (Cooke et al 2005).

Hyde et al (1998) investigated how patients preferred to spend the waiting time before an operation and reported that 57.1 % would like to listen to music while waiting for surgery; that music influenced a person's emotional feelings and physiologic responses. Music can be used therapeutically for music centered relaxation as a perceptual focus and stimulus, exerting its effect through entrainment or synchronization of body rhythms. The entrainment of body rhythms with music is thought to decrease sympathetic nervous system activity. These responses in turn, lead to decreased adrenergic activity, altered states of consciousness, and decreased neuromuscular arousal; all manifested as physiological indicators of

the relaxation response by decreases in heart rate, respiratory rate, metabolic rate, oxygen consumption, skeletal muscle tension, epinephrine level, gastric acidity and motility, and sweat gland activity, with decreased blood pressure (Chlan 1998). The auditory stimulation of listening to music influences the limbic system of the brain, the centre of emotions, feelings and sensations, by reducing neurotransmitter ability to relay uncomfortable feelings. This triggers the release of endorphins, the body's natural mood-altering substances (Lee et al 2005).

Recently, music has been shown to be effective in alleviating preoperative anxiety (Cooke et al 2005; Wang et al 2002; Yung et al. 2002). Wang et al (2002) conducted a study on music and preoperative anxiety where adult patients undergoing anaesthesia and surgery were randomly assigned to two study groups. The post intervention anxiety level of patients in the music group decreased by 16% compared with the preintervention level, whereas the anxiety level of the control group did not change significantly. Yung et al (2002) studied the effect of music on preoperative anxiety in Chinese men undergoing transurethral resection of the prostate. The study was designed as quasi-experimental with three groups: music intervention, nurse presence and control group. A reduction in anxiety level was found for the music intervention group. Cook et al (2005) in a randomised control trial studied the effect of music on preoperative anxiety in day surgery. The reduction of the anxiety level of the music intervention group was statistically significant.

Research in different patient groups show that music therapy reduced psychological stress as evidenced by decreasing the physiological symptoms of anxiety like heart rate (Lee et al 2005; Chlan 1998), blood pressure (Lee et al 2005; Yung et al. 2002; White 1999) and plasma cortisol hormone levels (Leardi et al 2007) as well as reducing anxiety for preoperative patients (Cooke et al 2005; Wang et al 2002; Yung et al 2002).

Chlan (1998) studied the effectiveness of a music therapy intervention on relaxation and anxiety for patients receiving ventilator assistance. The study

used a two-group, pre and post - test experimental design. State anxiety (pre and post test), heart rate, and respiratory rate were obtained every 5 minutes for 30 minutes. Patients who received music therapy (n=27) reported significantly less anxiety post test than those patients in the control group (n=27). Heart rate and respiratory rate decreased over time for those patients in the music group as compared with the control group subjects. Yung et al (2002) conducted a quasi-experimental design with three groups, using men undergoing transurethral resection of the prostate finding that music intervention significantly reduced patients' blood pressure levels. Lee et al (2005) studied the effect of music on the physiological responses of patients receiving mechanical ventilation. A total of 64 subjects were randomly assigned to undergo either 30 minutes of music intervention or a rest period. There were statistically significant decreases in outcome measures for the music group in the post test period in respiratory rate, heart rate, systolic blood pressure and diastolic blood pressure. For the control group, there was no significant reduction in outcome measures in the post test period.

Leardi et al (2007) conducted a randomised control trial to examine the effect of music therapy on stress response in patients undergoing day surgery. Sixty patients were randomised to one of three groups. Before and during surgery, patients in group 1 listened to new age music and those in group 2 listened to a choice of music from one of four styles. Patients in the control group heard the normal sounds of the operating theatre. Plasma levels of cortisol were evaluated before, during and after the operation. Plasma cortisol levels decreased during surgery in both patient groups who listened to music, but increased in the control group.

Sedative music, which tends to have no accented beats, no percussive characteristics, a slow tempo and a smooth melody, is reported to be suitable for music intervention (Chlan 2000). Research focusing on the type of music used to reduce anxiety has also been conducted (Lee et al 2005; Wong et al 2001). Wong et al (2001) conducted a pretest/

post test crossover with experimental repeated measures designed to examine the effect of music therapy on anxiety in ventilator-dependent patients. The experimental group selected music from the researcher's collection of relaxing music, including both Chinese music (Chinese folk song, music played by Chinese instruments, Chinese music played by Western instruments, Buddhist music) and Western music (Western classic, Western movie music and piano music). Findings indicated that music therapy was effective in decreasing state anxiety. In Lee et al's (2005) randomised controlled study, the patients listened to Chinese classical music, religious music (Buddhist and Christian), Western classical music and music of relaxing natural sounds that had a slow beat. The study demonstrated that music could significantly reduce the physiological responses to anxiety, ie heart rate, respiratory rate and blood pressure, in mechanically ventilated patients.

The musical preferences of patients are an important factor in the effect of music on patients, as not all people are likely to prefer the same types of music because of differences in age and culture for example (Lee et al 2004). Some research reported that the music chosen by patients is important in music therapy (Hayes et al 2003; Hamel 2001). Hamel (2001) found that two patients withdrew from the study because they disliked the music played and recommended that patients should be allowed to select the type of music listened to and suggested that patients be asked to bring their own music to hospital. Hayes et al (2003) evaluated music enjoyment in their study and found that patients who listened to music felt strongly about having a choice.

There are several studies examining the effect of music on vital signs (Uçan et al 2006; Güngör 1999), quality of life (Bozcuk et al 2006), anxiety (Bal 2002, Yılmaz et al 2003; Yıldırım and Gürkan 2007) and pain (Bal 2002) in Turkish patients. In Güngör's (1999) 4-group (music group, touch group, music and touch group and control group) experimental study, the effect of music and touch on vital signs (pulse, blood pressure and breathing) was examined. The study found that both music and touch reduced vital

signs in the three experimental groups compared with the control group. Similarly, Yıldırım and Gürkan (2007) found music reduced anxiety levels in patients undergoing chemotherapy. Bal (2002) found that listening to music during extracorporeal shock wave lithotripsy (ESWL) decreased pain and anxiety levels and suggested the type of music should be determined by the patient. In contrast Bozcuk et al (2006) reported that music had no significant effect on quality of life. Uçan et al (2006) also reported that music did not have any significant effect on pulse rate, blood pressure or oxygen saturation in preoperative endoscopy patients.

One reason why music is an attractive medium for a therapeutic nursing intervention is that it is not harmful and is easy to engage in. Providing music to patients is an inexpensive intervention, as it does not require the use of additional human or other resources, such as training or specialised equipment (Lee et al 2005). Therefore, music therapy can be used as a nursing intervention in preoperative nursing care.

The aim of this study was to examine the effect of music therapy on preoperative anxiety levels in Turkish men undergoing urogenital surgery. The hypothesis tested in this study was: Patients who listen to music before urogenital surgery will have statistically significant lower levels of preoperative anxiety than patients who receive routine care.

METHODOLOGY

Design and Setting
A randomised controlled trial design with a repeated measures approach was used to determine the effect of selected music on anxiety levels. Patients were randomly assigned to either the experiment or the control group. The patients were recruited from a 60 bed inpatient urology clinic between 20 April 2007 and 25 May 2007. Patients were eligible to participate if they were between the ages of 18 and 65; and could speak, read and write Turkish. They were not eligible to participate if they were deaf, had altered mental status or cognitive impairment either by history or identified during the initial

patient contact. All patients were male. A total of 64 patients fulfilled the inclusion criteria and were assigned to the control or the experimental group (32 in the experimental group, 32 in the control group). Sümbüloğlu and Sümbüloğlu (1997) considered that at least 30 subjects for each group are sufficient for experimental studies and parametric tests. Random assignment was achieved based on the day that patients underwent surgery. At the hospital where the research was conducted, the elective urogenital operations were performed four times a week. Patients who underwent surgery on Monday or Wednesday were assigned to the control group while patients who had their surgery on Tuesday or Thursday were assigned to the experimental group. Patient rooms were separated into experimental and control groups and as a result had no contact with each other during the period of music intervention which did not produce any ordered effect.

Sample size was determined by power analysis. Alpha level was taken as 0.05 and reliability was 95% during the calculation of power analysis. The size of the sample after power analysis was determined as 32 patients in each group (Lenth 2006).

Data Collection Questionnaire
The data collection questionnaire had two sections: demographic data form and the State Trait Anxiety Inventory (STAI).

Demographic Data Form
The demographic data form included marital status, education, reason for surgery and age.

State Trait Anxiety Inventory (STAI)
STAI was developed in 1970 by Spielberger and colleagues. The reliability and validity of the Turkish version of the STAI was conducted in 1985 by Öner and Le Compte. Cronbach's alpha internal consistency level was found to be 0.94. State anxiety scale measures how a person feels in a certain situation at a certain period of time. The STAI consists of 20 statements and subjects are asked to indicate how they felt 'at the moment' using a Likert 4- point scale ranging from 'not at all' to 'very much so'. Total scores obtained from the STAI range from 20 to 80.

The anxiety level is evaluated from the total score obtained from the STAI. A score between 1 and 20 is deemed to be not anxious; 21 to 40 as mild anxiety, 41 to 60 as moderate anxiety, and 61 and higher as severe anxiety (Öner and Le Compte 1985). In this study, the internal consistency of the STAI was calculated giving a Cronbach's alpha of 0.92 pretest and 0.94 post test.

Data Collection

All patients fulfilling the inclusion criteria were randomly assigned to one of the two groups: experimental or control.

Experimental group

On the day of surgery and prior to the patients being transferred to the operating theatre, demographic data was collected and STAI was applied to the patients in their beds. The patients then listened to music through earphones via a portable cassette-player for 30 minutes. The music was not heard by any other patient. Since the patients were listening to music through earphones, external noises were diminished. The researcher stayed with the patients during the whole intervention period for data collection. The patients selected the music from the researcher's collection which consisted of a variety of different types of music including Turkish classical music, folk music, Turkish art music, and pop music. The earphones helped the patients to focus on the music. The music volume was adjusted to a satisfactory level based on the subjects' facial expressions and verbal feedback; they smiled and looked calm when satisfied with the volume or expressed their dissatisfaction with the volume verbally if it was too loud or too soft. After the patients had listened to music, STAI was then applied a second time.

Control group

Like the patients in the experimental group, on the day of surgery and prior to the patients being transferred to the operating theatre, demographic data was collected from the patients in the control group and STAI (pretest) was applied. After a 30 minute resting period, STAI (post test) was then re-applied.

While collecting data from both groups, external noise was reduced by closing the door of the patients' room. At any time there were only other patients (5 at most) in the room. The questions were read aloud to each patient, who gave a verbal response. It took approximately 20 minutes to undertake the two measurements of anxiety level for each patient.

Ethics

The Head of the Urology Department at Süleyman Demirel Medical Centre gave written permission for the study to be conducted in the urology department. Formal ethics approval is not required in Turkey when conducting human subject research that does not require invasive procedures and does not pose a threat to human life. Verbal informed consent was obtained from all study patients and all patients were informed they could withdraw from the study at any time. Following the completion of data collection, patients in the control group listened to music for 30 minutes with earphones via a portable cassette-player, selecting the music they would like to listen to from the researcher's collection. The patients in the control group knew the patients in the other group listened to music, but they did not know when they listened to it. Patients were not told whether they were part of the experimental group or the control group to avoid bias.

Data analysis

SPSS version 10.0 was used to analyse the data. Demographic characteristics of individuals in each group were compared using chi-square, and independent-samples t test was used to compare the experimental and control groups. Paired t test was conducted to test for any significant difference between pre and post test STAI scores for each group. The statistical significance level was 0.05 for this study.

FINDINGS

There were no statistically significant differences between two groups in relation to their demographic characteristics (table 1).

Table 1: Demographic characteristics of the sample

Variable	Experimental n (%)	Control n (%)	p value
Marital Status			
Married	27 (84.4)	30 (93.8)	0.426
Single	5 (15.6)	2 (6.2)	
Education			
Illiterate	4 (12.5)	11 (34.4)	0.088
Primary School	9 (28.1)	10 (31.3)	
High School	10 (31.3)	8 (25.0)	
University	9 (28.1)	3 (9.4)	
Reason for surgery			
Urinary tract	22 (31.3)	26 (81.2)	0.194
Genital tract	10 (68.8)	6 (18.8)	
Age	X±SS=40.90 ± 13.34	X±SS=45.68 ± 13.14	0.154

The comparison of the average anxiety score of the groups, pre and post test are shown in table 2. The difference between the pre test average anxiety score of the experimental group before the music therapy and the average anxiety score of control group before the resting period was not demonstrated to be statistically significant (p=0.243). The difference between the post test average anxiety score of the experimental group after the music therapy and the post test average anxiety score of control group after the resting period was demonstrated as statistically significant (p<0.001). The power of this study was 0.90 for the study population. The effect size of the music therapy intervention was 0.8 which demonstrates that this intervention was effective.

Table 2: The comparison of the average anxiety scores pretest and post test between the groups

Measures	Groups	n	Mean	SD	P value
Pretest	Experimental	32	39.59	7.84	0.243
	Control	32	42.25	10.05	
Post test	Experimental	32	33.68	8.03	0.000
	Control	32	44.43	10.42	

The comparison of the average anxiety scores pre and post test (music therapy) for the experimental group and pre and post test (resting period) for the control group is shown in table 3. After the music therapy, the decrease in the average anxiety score of the experimental group was statistically significant (p=0.000). However in the control group, the increase in the post test anxiety score average was statistically significant (p=0.003).

Table 3: The comparison of the average anxiety scores pre and post test within the groups

Groups					
Experimental (n=32)			**Control (n=32)**		
	Mean	SD		Mean	SD
Before therapy	39.59	7.840	Pretest	42.25	10.05
After therapy	33.68	8.033	Post test	44.43	10.42
	P= 0.000			p= 0.003	

DISCUSSION

The salient finding of the study was that listening to music used as a nursing intervention preoperatively reduced the anxiety levels of patients undergoing urogenital surgery. Music, chosen by the patients, was delivered continuously for thirty minutes via a cassette-player. The findings suggest music may be a simple, cost-effective tool to help patients manage anxiety before surgery.

In this study, when comparing the anxiety scores of patients in the experimental group after music therapy with the anxiety scores of patients in the control group after the resting period, the anxiety score was lower in the experimental group.

Yung et al's (2002) study investigating the effect of music on preoperative anxiety in the patients undergoing prostate surgery had similar findings. Yılmaz et al (2003) conducted a study to evaluate the effect of music on sedation in extracorporeal shock wave lithotripsy (ESWL) treatment comparing its anxiolytic effects with those of midazolam. The STAI-TA was found to be statistically significantly lower in the music group than the midazolam group which indicates that with the anxiolytic effects of music, ESWL can be performed effectively using music for sedation rather than midazolam (Yılmaz et al 2003).

In McCaffrey and Good's (2000) phenomenological study with nine patients in the post operative recovery period, patients exhibited relaxation while listening to music. Many of the nurses indicated they enjoyed

taking care of the less anxious patients. Cooke et al (2005) conducted a randomised controlled trial to examine the effect of music on preoperative anxiety in adult surgical patients undergoing day surgery such as orthopaedic surgery, cystoscopy and biopsy. The preoperative STAI score mean difference between intervention and control patients was statistically significant.

Wang et al (2002) and Lee et al (2004) both demonstrated that music decreased preoperative anxiety in patients having outpatient and day surgery. Lee et al (2004) investigated the effect of music on preprocedure anxiety levels of patients undergoing day surgery procedures. Day surgery procedures included urology, endoscopy, and cauterisation under local or regional anaesthesia. They used a pre and post test quasi-experimental design applying the STAI-State (Chinese version) to measure anxiety. Patients, after non-random assignment, either listened to their choice of music for 20-40 minutes (n = 58) or received routine care in waiting rooms for 20-40 minutes (n = 55). Anxiety levels in the music group were statistically significantly lower at post test than in the control group. Sendelbach and Halm's (2006) experimental study investigating the physiologic and psychological effect of music on the patients undergoing cardiac surgery found a decrease in the anxiety levels of the music group. In Twiss et al's (2006) study investigating the effect of music on older patients undergoing cardiovascular surgery, the anxiety level of the music group was lower than the control group.

Although the studies cited were conducted with different surgical patient groups, the findings from this study support previous findings that music in the immediate preoperative period reduces anxiety. Therefore it can be conclude that preoperative music intervention might be effective in increasing preoperative comfort.

In this study, when comparing the average anxiety scores before and after music therapy in the experimental group, the decrease in anxiety score average was statistically significant. And in the control group, when comparing the average anxiety scores

before and after the resting period, the increase in the anxiety score average was statistically significant. Yung et al's (2002) study also demonstrated a statistically significant decrease in the anxiety score average of the intervention group while in the control group the anxiety score was high after the resting period although it was not statistically significant. In Bal's (2002) study investigating the effect of music on the pain and anxiety of patients undergoing extracorporeal shock wave lithotripsy (ESWL), the decrease in the anxiety score of the patients in the experimental group after the music therapy was statistically significant, when their anxiety scores before and after the music therapy were compared. In the same study, when the anxiety scores of the control group before and after the resting period were compared, the anxiety score after the resting period was high although it was not significant.

There were also some study findings that differed with the findings of this study (Lepage 2001; Miluk-Kolasa 1996). Miluk-Kolasa (1996) evaluated the physiological effect of music played to 100 patients undergoing surgery measuring vital signs, cardiac output and skin temperature. Patients were randomly assigned to two groups. Anxiety in both groups increased once they recived information about their surgery although there was no significant difference in physiological measures. Lepage (2001) randomly assigned patients to two groups in a preoperative waiting area and using a self-rated questionnaire found no difference in anxiety levels in either group although the experimental group required less midazolam to achieve a similar level of relaxation to the control group.

STUDY LIMITATIONS

There are certain limitations to this study. The sample was small, all male and limited to those patients who agreed to participate and it reflects only one geographical area of Turkey. The method of data collection could also be regarded as another limitation. Therefore the results of this study cannot be generalised to all male patients undergoing urogenital surgery or to all Turkish patients. Despite

the small sample size, significant differences in anxiety scale score averages were detected.

CONCLUSION

The results of this study show that listening to preferred music can effectively reduce preoperative anxiety. Despite the positive results, the current study needs to be replicated using a larger sample. The researches might examine the effectiveness of listening to preferred music for other patient populations.

IMPLICATIONS FOR NURSING PRACTICE

This research demonstrates that music should become a routine component of the care provide to patients during the preoperative period. The aim should be to minimise anxiety associated with surgery. Music can be used as an independent nursing intervention for anxiety reduction. A number of specific clinical situations are worthy of note. Music should be offered to surgical patients during their pre and post operative care. Nurses in the urology clinic should encourage patients to listen to their choice of music preoperatively by providing portable compact disc players and informing patients to bring a music compact disc with them. This research is important in providing information about evidence-based interventions for peri-operative nurses.

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The Australian diabetes educators' skills and readiness for the tsunami of diabetes in the 21st century

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KEY WORDS

Diabetes, teaching, learning, education

ABSTRACT

Objective

The objective of the study was to identify the knowledge, skills and practices of diabetes educators in relation to teaching and learning.

Design

Quantitative and qualitative analysis of an online survey.

Setting

Diabetes educators across Australia.

Subjects

A convenience sample self-selected from the Australian Diabetes Educators Association (ADEA) data base.

Main Outcome Measures

Attributes and barriers to effective teaching and learning.

Results

The survey response rate was 16.2% (n=212) of the 1306 ADEA members. 79% were aged >40years and 10% were >60years; 93% were female; and 34% worked in the role of diabetes educator full-time. ADEA respondents spent 50% of their day on client education; 20% on administration; and 30% equally distributed between research, quality improvement, staff education and other duties. Barriers to effective teaching and learning were a lack of time, resources and issues associated with bedside teaching.
Text responses indicated the desire to provide individualised, culturally, age and gender specific education. The majority of respondents (range 99.1%-95.5%, p=0.000) reported that providing education that allowed informed choices; helping clients learn from their choices and decisions; collaboratively writing goals and objectives; developing specific and tailored education programmes; teaching in a way that matched the clients' experiences; using interpreters; and involving families or significant others, were important.

Conclusion

Respondents were aware of the teaching and learning needs of their clients. However strategies to address barriers to effective teaching and learning and the need to maintain advanced skills and knowledge in the context of continuously changing practice and client demographics need to be considered.

INTRODUCTION

There is an increasing demand world wide from governments, employers and the community for accountability and multi-skilling of health professionals to improve health outcomes (AHWAC 2004). The responsibilities of the diabetes educator has evolved over the last decade from that of educator to a more comprehensive role, frequently encompassing management and counselling (Powers et al 2006; Anderson et al 1991; Davis 1990). Diabetes education is recognised as significant in the care of people with diabetes mellitus (Dunning and Martin 1998; Dunning et al 1994) and it is clear that appropriate treatment of people with diabetes has the potential to reduce hospitalisations and delay or prevent the onset of complications of diabetes (Colagiuri et al 2002; Dunstan et al 2001; Paduano et al 1987).

In the United States of America, certification of diabetes educators has been available since 1986. The purpose of certification is to ensure diabetes educators are competent, knowledgeable and proficient at providing diabetes education. Elsewhere internationally there are limited assessments of the knowledge and skills of diabetes educators in relation to teaching and learning (Sturt et al 2005; Paduano et al 1987).

In Australia, the accredited national curriculum for diabetes educators includes a minimum of 40 hours theory on teaching and learning and opportunities to develop teaching skills in practice. However in most Australian states, employment as a diabetes educator does not depend on completion of an accredited diabetes education course (ADEA 2006). Despite the availability of two diabetes educator distance education courses (Curtin and Deakin Universities), accessibility to such courses is difficult for many rural and semi-rural health professionals as minimal support for credentialing is provided by health agencies (Chabanuk 2006; Dunning and Martin 1998). These issues, combined with the increasingly broad role of diabetes educators in Australia, lends weight to the need for information about the existing knowledge, skills and practices of diabetes educators

in relation to teaching and helping individuals with diabetes learn about their disease (Colagiuri et al 2002; Paduano et al 1987). With these issues in mind the aims of this study were to collect information about diabetes educators knowledge, skills and practices in teaching and learning; analyse the relationship between diabetes educators knowledge, skills and practices in teaching and learning; document diabetes educators' definitions and self-explanations of teaching and teachers by using metaphor in the form of analogies; and identify the continuing education needs of diabetes educators in relation to teaching and learning and make recommendations for practice.

Research Design and Methods
Design
The research used quantitative and qualitative methods using an online survey to collect the data. The survey was developed specifically for the study and pilot tested by peer review with two academic, two professional and two teaching and learning staff at the University of South Australia.

Respondents
All respondents were members of the Australian Diabetes Educators Association (ADEA). Participation was voluntary and anonymous. Any national ADEA member wishing to contribute to the research was eligible to participate. Based on a literature review to estimate the expected Australian response rate to electronic surveys, a sample of 17% (221 members) from each State and Territory was anticipated (Hamilton 2003).

Recruitment / Anonymity/Consent
A letter describing the purpose of the study with a hyperlink to the questionnaire inviting diabetes educators to participate was emailed to all ADEA members directly from the executive office of ADEA in November 2006. The ADEA secretariat forwarded an email to all members with a link to the online questionnaire using the *University of South Australia's (UniSA) Tell-Us* software and technology (The University of South Australia 2006). Diabetes educators responded by clicking on the hyperlink to the online survey and then completing the online

questionnaire. Through this online method the identity and confidentiality of all respondents was protected. A specific individual consent process was not considered necessary as completion and return of the questionnaire implied consent from respondents.

Data Collection

The questionnaire consisted of three main sections. Section one gathered demographic data about the respondents with particular emphasis on formal and continuing education courses in teaching and learning. The second section of the questionnaire sought information about the diabetes educator's definitions and descriptions of teachers and teaching, including the use of an analogy through short answer text box options (this section is the subject of a separate paper). The final section required respondents to complete Likert scales (Elliott 2002) about the teaching, learning and diabetes education knowledge, strategies and practical skills they use.

Data Analysis

Data were analysed using the Statistical Package for Social Science™ (Version 14 2004) and Microsoft Excel 2003. Descriptive statistics are presented as means, percentages or proportions.

An independent-samples t test was conducted to compare the Likert responses to questions regarding teaching and learning strategies for diabetes education. Results were considered significant if the 2-tailed p value was ≤ 0.05. The correlations between teaching and learning skills and participant characteristics were examined using Chi square (X^2) tests. Where significant overall differences were found, adjusted standardised residuals were examined to determine which category differed from the overall average. Adjusted standardised residuals in SPSS can be interpreted as Z-scores. Bonferroni corrections were applied by dividing the p values by the number of statistical comparisons made.

Text responses were analysed using a qualitative iterative strategy based on the method proposed by Huberman and Miles (1994). Using an iterative approach, emerging patterns and themes were identified and broad themes describing the issues

and barriers surrounding current diabetes education were identified (the emerging patterns and themes are the subject of a separate paper).

Ethics

Ethics approval was obtained from The University of South Australia Human Ethics Research Committee.

Findings

From 10 October to 31 December 2006, a total of 212 ADEA members responded to the online survey. An invitation to participate was offered twice to members and the initial six week survey time frame was extended by a further six weeks due to the slow response rate. At completion of both survey time frames the overall response was 16.2% (n=212) of the 1306 ADEA members.

Demographic characteristics

Seventy nine percent of the respondents (n=167) were over forty years and ten percent were older than sixty years of age. Ninety three percent (n=198) were female (table 1). There were a large proportion of rural respondents (42.5%). Each Australian state and territory was represented proportionately to the ADEA membership distribution (table 1). Most respondents were employed in the public hospital sector (46.7%) or community based diabetes centres (19.8%), followed by other areas such as clinical trials and government agencies. No respondents were working within the aged care nursing home sector.

Diabetes educators performed multiple functions within their roles based on their qualifications and professional classification. Eighty eight percent described themselves as diabetes educators, 61% were registered nurses and 6.1% were dietitians. Other roles specifically identified included: client education (16.5%), staff education (15.6%), midwives, discharge coordinator and nurse practitioner (table 1).

Australian diabetes educators appear to be highly qualified with all respondents holding some form of post registration or post graduate qualification ranging from a certificate to a PhD. Sixty nine percent held a graduate certificate or diploma level qualification, with the highest qualification being a

doctorate. Seventy three percent had been practising in diabetes care for more than four years with half of this group (35%) practising for more than 10 years.

Only 34% of respondents worked in the role of diabetes educator full-time with the majority (59%) working between one and four days per week.

Table 1: Demographic characteristics of Australian Diabetes Educators Association survey respondents

Characteristic		n (%) Total n=212
Age group		
20-29yrs		11(5.2)
30-39yrs		34(16.0)
40-49yrs		87(41.0)
50-59yrs		70(33.0)
60+ years		10(4.7)
Sex		
Male		13(6.1)
Female		198(93.4)
Geographic Location		
Metropolitan		119(56.1)
Rural		90(42.5)
State of Australia (National Membership n=1306)	Survey Response	Membership
Victoria	60(28.3)	438(33.5)
New South Wales	41(19.3)	288(22.1)
Queensland	39(18.4)	190(14.5)
Western Australia	34(16.0)	171(13.9)
South Australia	26(12.3)	132(10.1)
Tasmania	8(3.8)	28(2.1)
Northern Territory	2(0.9)	15(1.1)
Australian Capital Territory	1(0.5)	26(1.9)
Employer		
Public hospital		99(46.7)
Community diabetes centre		42(19.8)
Other (clinical trials, other government agency)		40(18.9)
Self employed		14(6.6)
Private hospital		8(3.8)
Physicians office/ clinic		6(2.8)
University		1(0.5)
Nursing home (aged care facility)		0
Role (Multiple responses)		
Diabetes educator		187(88.2)
Registered nurse		130(61.3)
Client education		35(16.5)
Staff education		33(15.6)
Other (midwife, discharge coordinator, nurse practitioner)		18(8.5)
Dietitian		13(6.1)
Podiatrist		2(0.9)

Table 1: Demographic characteristics of Australian Diabetes Educators Association survey respondents, *continued….*

Characteristic	n (%) Total n=212
Highest education qualification	
Graduate certificate	96(45.3)
Graduate diploma	51(24.1)
Bachelor	29(13.7)
Master's degree	16(7.5)
Diploma	12(5.7)
Other (diabetes, management or teaching certificate)	6(2.8)
Doctorate	1(0.5)
Years in Diabetes Education	
< 1 year	16(7.5)
1-3 years	42(19.8)
4-9 years	78(36.8)
10+ years	75(35.4)
Hours employed in diabetes education	
Less than one hour per week	11(5.2)
1-8 hours per week	25(11.8)
9-16 hours per week	26(12.3)
17-24 hours per week	32(15.1)
25-32 hours per week	43(20.3)
33-40 hours per week	72(34.0)

Personal and professional development

One third (32.5%) said they remained current with the teaching and learning literature by reading at least once a month. The remainder indicated they were able to review information weekly (20.3%) or six monthly (20.8%). Within the previous year 92.5% had attended two or more days of continuing education on diabetes, with 38.7% of respondents attending between four and seven days. In addition, 51% of respondents had attended between two and seven days of continuing education on teaching and learning. The remaining respondents had attended either one day (16.5%) or less than four hours (23.1%) of continuing education on teaching and learning within the past year.

Daily workload distribution

Respondents were asked to estimate the percentage of time they spent daily fulfilling the various roles required of a diabetes educator (figure 1). The most common responses were tabulated to reveal that overall ADEA respondents considered they spent 50% of their day on client education, 20% on administrative tasks and the remaining third of each day equally distributed between research and quality improvement tasks; staff education; and other duties such as working clinical shifts.

Figure 1: ADEA survey respondents' composite workload per day
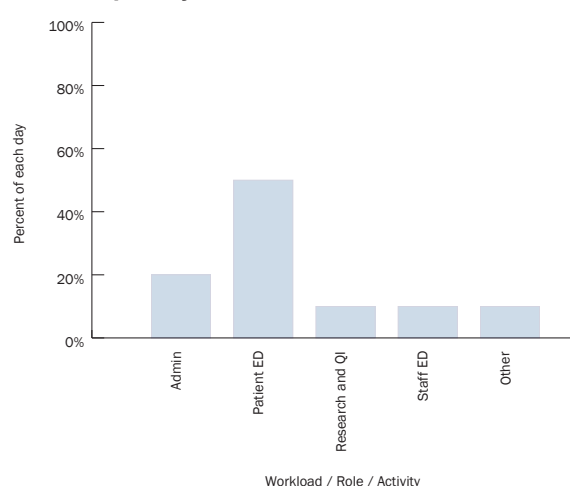
Figure 2: Analogies of a diabetes educator
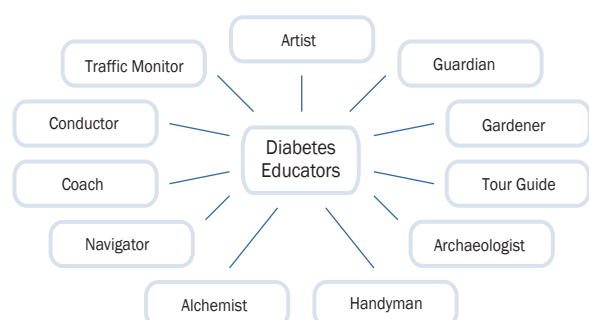
Analogies of a diabetes educator

Within this section of the survey, respondents were asked to write a short analogy of how they saw themselves in their role. The example of a gardener sowing and nurturing a seed was provided. Respondents used many creative and imaginative analogies. A graphic presentation of some of the most common analogies is shown in figure 2. The figure presents how respondents compared themselves to coaches, artists, tour guides, archaeologists, alchemists, navigators, conductors, traffic monitors, and angels or guardians. Other analogies included: friends, mothers, chefs, surf life savers, ants, the segments of an orange, links in a chain, confessor and a roller coaster ride (the analogies are the subject of a separate paper).

Barriers and attributes to teaching and learning in diabetes education

Barriers

This section of the survey involved open-ended questions to enable respondents to discuss the issues they identified as important barriers and attributes to teaching and learning in diabetes education. The most common themes identified as barriers to *effective teaching* included: time; resources; the ability to individually assess the learners' needs; multiple cultures and languages and the level of teaching skills and diabetes knowledge of the educator (figure 3).

The themes identified as barriers to *effective learning* for the client included: emotional state and readiness to learn; literacy, language and cultural; personal expense (eg parking and transport); physical and mental health; time available; information overload and conflicting information from professionals (figure 3).

Figure 3: Attributes and barriers to effective diabetes teaching and learning

Effective Diabetes Education

ADEA members' survey 2006

Barriers

To effective teaching

- Time
- Resources
- Assessment of learning needs
- Culture / Language
- Teaching skills
- Diabetes knowledge

To effective learning

- Emotional State / ready to learn
- Literacy / Language / Cultural sensitivity
- Physical & mental health of client
- Hospital environment
- Time available
- Cost to client (transport, parking)
- Information overload
- Conflicting information

Attributes

Of the Educator

- Active listener
- Able to adapt and be flexible
- Individualised teaching
- Knowledge
- Communications Skills
- Friendly / Approachable
- Non-judgemental
- Professional

Of the Teaching Environment

- Comfortable and relaxed
- Quiet and free from distractions
- Friendly
- Private
- Safe and accessible
- Clean / uncluttered / ambience / non-clinical

Attributes

The themes identified as attributes of the diabetes educator included: being an active listener; being adaptive and flexible to individual needs; knowledge; communication skills; friendly and approachable; non-judgemental and professional (figure 3).

The most common themes identified as attributes of an effective diabetes education teaching and learning environment included: having a comfortable, friendly, quiet and relaxed place to teach and learn; the environment should be safe and clean, uncluttered and free of distractions (figure 3).

Effective strategies for diabetes teaching and learning

The final section of the survey contained 13 statements which asked respondents to rate a group of teaching and learning strategies for diabetes education using a five point analogue scale. The scale ranged from least important (1) to most important (5). For ease of analysis, the five categories were reduced to two (important 4 and 5 and not important 1, 2 and 3) to better reflect the responses to the statements provided (Elliott 2002).

Significantly, a majority of respondents reported that teaching strategies; providing education that enabled clients to make informed choices; helping clients learn from their choices and decisions; collaboratively writing goals and objectives; developing specific and tailored education programs; teaching in a way that matched the clients' experiences; using interpreters and involving families or significant others were important (range 95.5%-99.1%, *p*=0.000) (table 2). Other strategies that were considered important were the provision of written material before, during or after sessions and scheduling short focused sessions (range 82.5%-87.7%). Two thirds (66.5%) of respondents thought it was important to use audiovisuals during teaching sessions (66.5%; 95%CI, 1.59-1.72, *p*=0.000) (table 2). Only 44% of respondents thought education sessions for specific populations eg gender or for specific types of diabetes were important and 18.9% (95% CI, 1.12-1.23, *p*=0.000) rated standardised teaching programs as important or conversely 80.7% did not (95% CI, 1.12-.1.23, *p*=0.000) (table 2).

ADEA members who reported using handouts prior or during educations session as least important (30.6%, 95% CI, 0.24-0.37, *p*=0.010) were noted to work full-time (33-40 hours) but had attended less than three days professional development per year.

ADEA members who rated using a standardised teaching program as most important were predominantly community-based educators (42.9%, 95% CI, 0.01-0.06, *p*=0.025), held a Bachelor degree (35.7%, 95% CI, 0.01-0.05) and reviewed the education literature fortnightly (28.6%, 95% CI, 0.00-0.05, *p*=0.044).

Finally, the correlations between demographic characteristics and respondents who reported designing education for specific groups eg gender specific or specific for type of diabetes, as least important were more likely to work in physicians' offices (16.7%, 95% CI, 0.03-0.57, *p*=0.038), did not read education literature (33.3%, 95% CI, 0.09-0.72, *p*=0.034) and/or had attended professional diabetes development of less than one day in the previous year (16.7%, 95% CI, 0.03-0.57, *p*=0.038).

DISCUSSION

Even though the response rate to the survey was low, 16.2%, 212 respondents of the total 1306 ADEA members responded with enthusiasm as demonstrated by the time taken to provide lengthy text based responses to the open ended questions.

Demographic profile of respondents

The most concerning aspect of the demographic analysis was that, like the Australian nursing workforce, (Australian Health Workforce Advisory Committee 2004) diabetes educators/registered nurses appear to be an ageing work-force. Almost 80% were over 40 years of age and 5% were over 60 years of age; only 5% were within the age range of 'typical' new graduates (20-29 years), which leaves only 5% in the 30-39 age group to sustain the future of the specialty.

Seventy two percent of educators had been providing diabetes education between 4-10 years, including 35% who had been working as diabetes educators for more than 10 years. The question therefore arises as

to what processes are in place to nurture and educate the next generation of diabetes educators and what succession planning from the diabetes educators currently in these roles and the ADEA is in place to ensure the knowledge, wisdom and experience will be passed on.

No respondents were working within the aged care sector. Therefore it is unclear who provides diabetes care for this group of people which is a significant issue in a group known to have a high incidence of diabetes (Colagiuri et al 2002; Colagiuri 1996).

Table 2: Strategies for effective diabetes teaching and learning

Strategy	Important n=212 (%)	Not important n=212 (%)	P Value (95% CI)
Providing education in a way in which clients can make informed choices	210 (99.1%)	2 (0.9%)	0.001 (1.97-2.00)
Helping clients to learn from their choices and decisions	207 (97.6%)	5 (2.4%)	0.001 (1.95-1.99)
Collaboratively writing goals and objectives with each client	206 (97.2%)	4 (1.9%)	0.001 (1.93-1.99)
Developing an education program that is tailored to meet the specific needs of an individual client	205 (96.7%)	7 (3.3%)	0.001 (1.94-1.99)
Teaching content in a way that is useful and matches the clients experiences with diabetes	203 (95.8%)	7 (3.3%)	0.001 (1.91-1.98)
The use of interpreters with clients who have English as a second language	196 (92.5%)	14 (6.6%)	0.001 (1.87-1.95)
Involving clients' families or significant others in education sessions	196 (92.5%)	14 (6.6%)	0.001 (1.87-1.95)
The use of written material on diabetes prior to or during education sessions	186 (87.7%)	24 (11.3%)	0.001 (1.81-1.91)
Supplying clients with written material following education sessions	178 (84.0%)	34 (16.0%)	0.001 (1.79-1.88)
Scheduling education sessions that are short and focused on a limited number of concepts	175 (82.5%)	36 (17.0%)	0.001 (1.76-1.87)
Using audio-visual aids such as films, videotapes, overheads and slides during education sessions	141 (66.5%)	17 (33.0%)	0.001 (1.59-1.72)
Participation in a formal education class specifically designed for the clients' population (eg gender, type of diabetes)	95 (44.8%)	116 (54.7%)	0.001 (1.37-1.51)
Using a standardised teaching program that is applicable to all clients	40 (18.9%)	171 (80.7%)	0.001 (1.12-1.23)

p values derived from independent sample t-tests significance p≤ 0.05, CI = 95%

Two thirds of the respondents worked within diabetes education part-time, between 1-32 hours per week. Yet the text responses indicated that time was a barrier to effective education. It was not clear whether part-time employment was a personal choice (93% female) or due to available funding for the role (46% public hospital with 20% community based) (Colagiuri et al 2002). Whilst almost half the respondents worked in public hospitals, 42.5% also worked in rural areas where the number of people with diabetes is lower due to smaller populations. Thus it could be proposed that full-time employment

in diabetes education is less likely to be funded in these areas.

Diabetes educators' knowledge, skills and practices in teaching and learning

The typical work day of the respondents was consistent in all areas of employment: 50% of educators' time was devoted to client education. The remaining time was distributed among administration, quality improvement activities, research, staff education, and other activities such as direct client care.

The barriers to effective client education were identified as a lack of time and resources and issues associated with bedside teaching. The issue of effective time utilisation was not explored in this survey but may be an area for future investigation. Education at the bedside continues to be undertaken despite its limitations such as background noise, interruptions and a lack of privacy; all barriers to effective teaching and learning. Respondents described the attributes of an effective teacher as being an active listener; able to adapt and be flexible; demonstrating a high level of knowledge; with good communications skills; friendly and approachable; and professional, and these qualities applied in any context (figure 3).

The most obvious conflict presented arising from the text responses was the desire to provide individualised, culturally, age and gender specific education within the environment of a diabetes epidemic *"…too many clients, not enough of me!"*

Using analogies to describe the role of a diabetes educator

The question asking respondents to describe their role in the form of an analogy or metaphor revealed an artistic and literary side to Australian diabetes educators.

The analogies presented in figure 2 represented the vocational aspects of the diabetes education role, as described by the respondents in the form of an analogy. These included comparisons to a traffic monitor, gardener and handyman. There were also more abstract analogies such as an ant, segments of an orange, and a lighthouse keeper. In addition, more personal relationships were identified through the analogies such as 'friend' and 'mother' which are references to a dependent relationship between the client and the diabetes educator and appear to be in conflict with adult learning and/or self-management principles embodied in the teaching and learning process currently employed in diabetes education.

Continuing education needs

The majority of respondents (91.5%) indicated they were able to attend at least 2 days of professional diabetes continuing education each year. However 6% of respondents indicated that remaining up-to-date about diabetes management was a barrier to effective teaching. This may be because attendance at continuing professional diabetes education may be about the management of diabetes rather than the education or skills required for effective teaching.

The majority of respondents (74%) also indicated they were able to read teaching and learning literature weekly, fortnightly or monthly. This was considered to be high given they had identified a lack of appropriate teaching skills as a barrier to effective diabetes teaching and learning. It is possible that the literature they are reading is about diabetes education rather than generic education or teaching and learning. It is also likely that reading about education, teaching and learning does not provide the diabetes educators with the necessary confidence or teaching skills for practice. Thus, to maintain their knowledge and skills in the continuously changing environment of diabetes management, diabetes educators need to focus their reading on generic education literature and undertake practice based learning opportunities about teaching skills in their continuing education programs.

RECOMMENDATIONS

The epidemic of diabetes is increasing in Australia. In the next decade there will be a need and demand for more diabetes education. The following recommendations are made on the basis of the data gathered in the study about the current teaching and learning practices of diabetes educators including the attributes and barriers that have been identified.

- Funding for the time and expense required for attending professional development should be included within diabetes educators' employment contracts as maintaining relevance and implementing evidence based practice as well as maintaining currency of the latest teaching and learning techniques is essential for an effective diabetes educator.

- Current diabetes educators should access the national ADEA mentorship programme which

will provide a continuum for the current clinical knowledge and expertise.

- Employers of diabetes educators and the ADEA need to look beyond the ADEA mentorship programme when succession planning to prepare for the exodus of the ageing workforce.

- Self governance by diabetes educators is required to meet national job specifications while working toward credentialing standards.

- Investigation into the diabetes educators' diverse analogies of their role and their relationships with clients.

- Further research into the teaching strategies used by diabetes educators is needed.

Limitations of the study

There are several limitations to this study. Firstly the low response rate to the survey limits the generalisability of the results. However these data maybe regarded as a snap shot of diabetes practice at the time of the survey and could be used as a guide for further research. It is also difficult to determine whether the ADEA members who responded to this survey represent a biased sample of highly motivated professionals. Therefore it is difficult to determine the extent to which the attributes and views of the sample of ADEA members, represents practice in 'the broader real world context'. The results of questions relating to how often specific teaching and learning literature was reviewed may be overstated because a clear definition of the literature sources was not provided. There may have been a conception that diabetes education material alone was a sufficient teaching and learning source. A final limitation of the study is that the e-survey was specifically designed for this project and the scales and items were not previously validated.

CONCLUSION

The results indicate that the ADEA members who responded to the survey were highly qualified, experienced and motivated diabetes educators. The majority were aware of the teaching and learning needs of their clients and the skills they require to deliver best practice education. Most educators were committed to participating in some professional continuing education to improve and maintain their competency.

Strategies to address the barriers to effective teaching and learning in diabetes education in both the acute and community contexts need to be addressed. Issues such as limited time and resources, individualised approaches and opportunities to maintain advanced skills and knowledge remain a continuing challenge for diabetes educators.

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The effect of education on knowledge, self management behaviours and self efficacy of patients with type 2 diabetes

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ABSTRACT

Objective
The study was conducted to evaluate the effect of patient education on knowledge, self management behaviours and self efficacy in patients with type 2 diabetes.

Design
A randomised single blind controlled study was designed to assess the effect of education using a pre and post test design.

Setting
The study was conducted in an outpatient clinic in the Department of Endocrinology and Metabolism, School of Medicine, Ankara University, Turkey.

Subjects
The study population consisted of eighty patients with type 2 diabetes who were randomly assigned to the intervention or control group by recruitment number.

Intervention
An education program was developed and delivered to the intervention group. Knowledge and self reported self management behaviours were tested before and after the education program. For the evaluation of self efficacy of patients with type 2 diabetes, mean scores of diabetes self efficacy scale were analysed. The control group received routine treatment.

Main outcome measures
The improvements in knowledge and in self reported self management behaviours were measured by knowledge test; self efficacy of patients was measured by mean scores of diabetes self efficacy scale.

Results
There were significant differences between the intervention and control groups. Improvements were observed in taking regular walks ($p=0.043$), recognising nutrients with high caloric content ($p=0.037$), recommended daily fat distribution ($p=0.024$), regulating blood glucose levels to avoid complications ($p=0.002$), and in diabetes self efficacy mean scores ($p=0.006$).

Conclusion
Patient education had a limited effect on knowledge and self reported self management behaviours but a significant effect on self efficacy in patients with type 2 diabetes.

INTRODUCTION

Diabetes mellitus is a chronic disease that constitutes a major public health problem. It affects between two to five per cent of the adult population in industrialised countries (Arend et al 2000). The prevalence of type 2 diabetes is predicted to rise over the next decade (Cooper et al 2003) and according to global estimates from the World Health Organization, the total number of people with diabetes will rise from 171 million in 2000 to 366 million in 2030 (Wild et al 2004). The overall crude prevalence of diabetes in Turkey was 7.2 % between September 1997 and March 1998 (Satman et al 2002). (Wild et al 2004). The overall crude prevalence of diabetes in Turkey was 7.2 % between September 1997 and March 1998 (Satman et al 2002).

Diabetes education has been an essential component of diabetes management since the 1930s and is increasingly recognised as an integral part of chronic disease management. The objectives of educating people with type 2 diabetes are to optimise metabolic control; prevent acute and chronic complications; improve quality of life by influencing patient behaviour and produce changes in knowledge, attitude and behaviour necessary to maintain or improve health (Falvo 2004; Snoek and Visser 2003). Research suggests patients who are informed about their illness and its treatment, are more likely to succeed in managing their illness (Ellis et al 2004). For example, hypoglycaemia is one of the most common problems people with diabetes have to cope with; the management of which differs according to treatment and medications. Self monitoring blood glucose can be used to prevent hypoglycaemic or hyperglycaemic episodes and to identify the impact of lifestyle and medication changes on glucose levels (Banerj 2007). On the other hand, many people with type 2 diabetes need to lose weight. So diet needs to be individualised.

Self management for people with chronic health problems is widely recognised as a necessary part of treatment. The patient is responsible for the day-to-day management of their illness (Lorig and Holman 2000). In order to effectively self manage their disease, people must acquire the necessary knowledge, skill, and confidence and engage in particular behaviours such as testing blood glucose and emotional management (Adams et al 2004). Confidence or self efficacy refers to the individual's belief in his or her capacity to perform the behaviour (Janz et al 2002; Bandura, 1977).

The complex nature of diabetes self management makes it difficult to manage well. Recent large well controlled studies demonstrated that moderate intensity exercise and diet can prevent or delay the onset of type 2 diabetes (DESG 2002g). People with diabetes report that diet and exercise are the most difficult aspects to manage (DESG 2002 a and e). Significant management issues in type 2 diabetes are weight management, the use of self monitoring blood glucose and reducing lipids. Approximately 75% of diabetic patients report deviating significantly from recommended dietary guidelines at least weekly (Goodall and Halford 1991). Additionally, between 40% and 80% of patients under report at least half their blood glucose levels and half the population with diabetes does not follow foot-care recommendations (DESG 2002d).

AIM

The aim of the study was to evaluate the effect of patient education on knowledge, self management behaviour and self efficacy in patients with type 2 diabetes.

METHOD

A randomised controlled trial was undertaken at the Diabetes Centre (an outpatient clinic), Department of Endocrinology and Metabolism, Ankara University, Turkey. Patients were eligible to participate if they had a diagnosis of type 2 diabetes, had attended at least one follow-up visit and were able to give informed consent. The average age of the patients was over forty years and all except one patient was literate.

Patients with type 2 diabetes, who regularly attended to the centre for treatment and follow up were offered enrolment in the study. Eighty patients agreed to participate and were randomly assigned

to either the intervention or control group according to their assigned number. The patients who agreed to participate were given recruitment numbers. To determine the intervention and control groups, the words 'intervention' and 'control' were written on a separate piece of paper and with 'intervention' being drawn as the first randomisation. To assign the patients into the intervention and the control group, the numbers '1' and '2' were written on a separate piece of paper and number '1' was drawn first, so patients with odd recruitment numbers were assigned to the intervention group. They were forty patients in each group.

In order to plan the education program, a knowledge test was developed and administered to the intervention and control group as a pre test. Based on the results of the pre test, the education program was developed and delivered to the intervention group by the researcher. Two weeks after the education, the knowledge test was re-administered to both groups as post test. As the education was not delivered to the control group, the correct answers were explained to each patient following the post test. The knowledge test consisted of a written questionnaire and was designed to measure knowledge, self reported self management behaviours, and diabetes self efficacy.

The content of the test was as follows:

1. Patient characteristics such as gender, age, educational level, body mass index, duration of diabetes and type of treatment.

2. Twelve questions about knowledge on type 2 diabetes. The questions were based on the recommendations of two physicians from the Department of Endocrinology and Metabolism, and the Teaching Letters (2, 3, 4, 6, 10, 16, 27), which are prepared by Diabetes Education Study Group (DESG) of the European Association for the Study of Diabetes (EASD).

3. Fourteen questions about self reported self management behaviours related to exercise, preventing hypoglycaemia, blood glucose self monitoring, weight control, diabetic retinopathy,

foot-care and measuring blood pressure (Teaching Letters 2, 3, 4, 6, 10, 16, 27).

In terms of exercise, patients were asked questions about stretching, walking regularly, swimming, and cycling. It terms of preventing hypoglycaemia, the patients were asked whether they carried sugar cubes as a precaution to manage sudden falls in blood glucose and whether they monitored their blood glucose levels before exercising and bedtime. Blood glucose self monitoring questions addressed fasting and post prandial blood glucose; weight control questions asked whether patients weighed themselves and how often this was done; diabetic retinopathy questions asked whether the patient had their eyes checked by an ophthalmologist at least every six months and whether they tried to regulate their blood glucose to prevent the development of retinopathy; foot care questions asked whether the patient inspected their feet daily; and blood pressure monitoring questions asked whether blood pressure was measured and the frequency.

4. Diabetes Self efficacy Scale (Stanford Patient Education Research Centre 2004). The scale consists of eight items about confidence to perform diabetes self management behaviours given below:

• How confident do you feel that you can eat your meals every 4 to 5 hours every day, including breakfast every day?

• How confident do you feel that you can follow your diet when you have to prepare or share food with other people who do not have diabetes?

• How confident do you feel that you can choose the appropriate foods to eat when you are hungry (for example, snacks)?

• How confident do you feel that you can exercise 15 to 30 minutes, 4 to 5 times a week?

• How confident do you feel that you can

do something to prevent your blood sugar level from dropping when you exercise?

- How confident do you feel that you know what to do when your blood sugar level goes higher or lower than it should be?

- How confident do you feel that you can judge when the changes in your illness mean you should visit the doctor?

- How confident do you feel that you can control your diabetes so that it does not interfere with the things you want to do?

The scale was translated into Turkish. In order to validate the scale in Turkish, the recommendations of a professional English teacher from the University of Ankara were taken into consideration. As the meanings of the original items '1' and '6' lost their real meanings after translation, they were deleted from the scale.

Responses were rated on a scale of one to five where 1 corresponded to 'never'; 2 to 'low'; 3 to 'moderate', 4 to 'good'; and 5 to 'very good'. The reliability of the original scale is 0.85. The Cronbach's alpha of the revised scale was 0.74.

To validate the knowledge test, it was administered to ten patients and according to the results no changes were made except place of living of the patients was omitted. Pilot study participants were excluded from the main study.

The test, including all four sections given above, was given to all patients before education as a pre test. The educational intervention was designed to coincide with scheduled medical visits. Subjects participated in the education program three months after the initial assessments were completed. The results of routine laboratory assessments were recorded for all participants. Two weeks after the initial education program, the test was re-administered to the intervention and control groups.

The correct answers were explained the intervention group during education and to each patient in the control group following post test. To prevent contamination of the intervention, education was delivered to five groups of patients in the intervention group in different weeks.

The education program included diabetes specific information and information about self management behaviour including blood glucose self monitoring, hypo and hyperglycaemia, exercise, diet, weight control complications, foot care and the importance of medical care. The education was delivered by the researcher using a question based patient centred approach which consisted of answering participant's questions about diabetes and its care.

The program lasted for 90 minutes and was delivered in groups of 7-12 patients in two sessions of 45 minutes one week apart. The program was repeated for each of the five cohorts of subjects in the intervention group and evaluated by post test.

Data analysis processes

Data were processed using the Statistical Package for the Social Sciences (SPSS) for Windows version 10.0. In order to compare the intervention with the control group, chi-square and Fisher's exact test were undertaken for dichotomous variables. Unpaired Student's t-test was used to analyse the mean pre and post education program self efficacy test scores of the intervention and the control groups. The differences were considered to be statistically significant at $p < 0.05$.

RESULTS

Patient Characteristics
There were no significant differences in gender, age, education level, body mass index, diabetes duration, or type of treatment between patients in the intervention and the control groups (table 1).

Knowledge
Hypoglycaemia
Patients were asked about the causes of hypoglycaemia and they indicated 'forgetting snacks' as the cause of hypoglycaemia. The results are shown in table 2.

Table 1: Patient characteristics in the intervention and control group

Characteristics	Intervention group (n=40)	Control group (n=40)	p-value
Gender			
Female	20	21	1
Male	20	19	0.833
Age (years)			
≤ 39	2	1	0.833
40-44	3	1	
45-49	5	7	
50-54	9	11	
55-59	11	9	
≥ 60	10	11	
Level of education			
< High school	14	16	0.084
High school	0	5	
> High school	26	19	
BMI (kg/m2)			
< 29	9	9	0.965
29-31	20	21	
≥ 32	11	10	
Duration of diabetes (years)			
0-4	9	14	0.447
5-9	8	9	
10-14	12	11	
≥ 15	11	6	
Type of treatment			
Tablets	36	36	1
Insulin	16	15	1
Tablets and insulin	13	12	1

Table 2: Number of patients in the intervention and the control group responding correctly to questions about diet, nutrient with high caloric content, daily fat distribution and causes of hypoglycaemia

Characteristics	Intervention group (n=40)	Control group (n=40)	p-value
Forgetting snacks			
Before the education	26	22	0.494
After the education	34	31	0.568
Nutrient with high caloric content			
Before the education			
Correct	10	13	0.622
Incorrect	30	27	
After the education			
Correct	20	10	0.037
Incorrect	20	30	
Daily fat distribution			
Before the education			
Correct	18	11	0.162
Incorrect	29	22	
After the education			
Correct	23	12	0.024
Incorrect	17	28	

Patients were asked to state the benefits of blood glucose self monitoring levels at bedtime. Before education, two patients in the intervention and none in the control group reported the necessity of blood glucose self monitoring (p=0.247). After education, four patients in the intervention and one in the control group reported the necessity of blood glucose self monitoring at bedtime (p=0.179).

Diet
Patients were asked which nutrient increased blood glucose level. Before education, 28 patients in the intervention and 31 in the control group responded correctly (p=0.612).

Following education, 32 patients in the intervention and 30 in the control group gave the correct answer, but the change was not statistically significant when compared to the control group (p=0.790).

The responses regarding nutrient with high caloric content and recommended daily fat distribution are shown in table 2.

Ten patients in the intervention and thirteen patients in the control group could name nutrients with high caloric content before the program, which rose to 20 in the intervention and ten in the control group after the education program and the difference was significant (p=0.037).

Eighteen patients in the intervention and eleven in the control group described recommended daily fat distribution correctly. After education, 23 in the intervention group and 12 in the control group knew the recommended daily fat allowance was <30% of the total caloric intake. The difference was significant (p=0.010).

Patients were asked whether nutrient intake needed to be reduced in order to lose weight. Prior to the education program, 29 in the intervention group and 15 in the control group stated that fat was the nutrient to be reduced. After education, 26 in the intervention and 18 in the control group responded correctly, but the difference was not significant (p=0.892).

Diabetic Retinopathy

As diabetic retinopathy is a complication that leads to blindness, patients were asked whether they knew the damaging effects of retinopathy. Before and after the education program 39 patients in the intervention and all in the control group knew diabetes could damage the eyes (p=1.000). Patients were not asked about other complications such as cardiovascular and renal disease, because it was difficult for patients to evaluate.

Self reported self management behaviours

Exercise

Patients were asked their exercise practices, specifically they were asked whether or not they did stretching, walked regularly, swam, or cycled. All subjects in both groups replied that they understood exercise to be 'walking' (see table 3).

Table 3: Comparison of self reported self management behaviours exercise and diabetic retinopathy in the intervention and the control groups

Self management	Intervention group (n=40)	Control group (n=40)	p-value
Walked regularly			
Before the education			
None	13	12	0.888
≤ 30 minutes	5	4	
31-60 minutes	22	24	
After the education			
None	6	16	0.043
≤ 30 minutes	7	5	
31-60 minutes	27	19	
Regulated blood glucose to prevent diabetic retinopathy			
Before the education			
Yes	11	6	0.274
No	29	34	
After the education			
Yes	21	7	0.002
No	19	33	

Preventing hypoglycaemia

Carrying sugar cubes

Carrying sugar cubes is a standard recommendation for patients to manage hypoglycaemia in the Diabetes Centre, Department of Endocrinology and Metabolism, Ankara University, Turkey. Twenty-seven patients in the intervention and 26 in the control group reported carrying sugar cubes before the education program (p=0.494), which rose to 35 in the intervention group after the education, but the difference was not statistically significant between the two groups (p=0.568).

Blood glucose self monitoring

Six patients in each group reported they monitored their blood glucose levels before exercising (p=1.000). After the education program, seven patients in the intervention and one in the control group reported monitoring their blood glucose before exercising, which indicates education did not affect the likelihood of testing blood glucose before exercising (p=0.057). Likewise, the education program did not significantly affect the likelihood to test bed time blood glucose in the intervention group and there was no statistically significant difference between the intervention and the control groups (p=0.179).

In addition, participants were asked about fasting blood glucose self monitoring and testing post prandial blood glucose. Fifteen patients in the intervention and 17 in the control group reported testing fasting blood glucose before education (p=0.818), which increased in the intervention group after the program but the difference was not statistically significant (p=0.502). There were no statistically significant differences between the intervention and the control group at either time point for post prandial blood glucose testing before (p=1.000) or after (p=0.378) the education program.

Weight control

Weight control is important to managing type 2 diabetes and is causally linked to obesity. Patients were asked whether they weighed themselves or not and the frequency of weighing. Before the

education, 23 patients in the intervention and 27 in the control group reported that they weighed themselves (p=0.032). After the education, 27 in the intervention and 29 in the control group reported weighing themselves, however the difference was not statistically significant (p=0.537).

Diabetic retinopathy

The relationship between high blood glucose levels and retinopathy and the importance of regular eye checks at least every six months even if no signs of retinopathy are detected were emphasised in the education program. The number of patients who reported they met this recommendation was similar in the intervention and control group (p=0.453) and did not change after the education (p=1.000).

The comparison of patients who reported trying to regulate their blood glucose according to the values of blood glucose self monitoring to prevent diabetic retinopathy in both groups, is shown in table 3.

Foot care

The importance of inspecting feet every day was highlighted in the education program. Before the education program, thirty-two patients in the intervention and 31 in the control group reported they inspected their feet every day (p=1.000). After the education, 37 in the intervention and 35 in the control group reported inspecting their feet every day (p=0.712).

Measuring blood pressure

Before education, nine patients in the intervention and eleven patients in the control group reported they measured their blood pressure daily (p=0.797) and these numbers did not change after the education (p=0.790).

Self efficacy

Table 4 shows the mean diabetes self efficacy scale scores. The results indicate that education improved self efficacy in the intervention group compared to the control group.

The difference between the mean scores of self efficacy before and after education in the intervention group was compared to the difference found in the control group and the difference was statistically significant (p=0.006).

Table 4: Diabetes self efficacy scale mean scores of the intervention and the control groups

	Intervention group (n=40)	Control group (n=40)	p-value
Before the education	[a]20.0 ± 4.0	19.4 ± 4.3	0.538
After the education	21.9 ± 3.2	19.4 ± 4.4	0.006

[a] Data are mean ± SD

DISCUSSION

The purpose of this study was to evaluate the effect of patient education on knowledge, self management behaviours and self efficacy in patients with type 2 diabetes. The intervention specifically developed for this study was short-term and did not include long-term follow-up.

The evidence from other randomised controlled trials suggests that self management approaches effectively increase participants' knowledge, symptom self management, other self management behaviour such testing blood glucose, weight control, self efficacy, and aspects of health status (Barlow et al 2002). However in this study, knowledge improved to a limited extent and as self reported self management behaviour, only walking regularly and trying to regulate blood glucose levels to prevent diabetic retinopathy, improved significantly. Recent meta-analyses have reported that in the absence of follow-up intervention, health-related improvements gained from self management programs do not persist over the long-term (Tang et al 2005) and it is not easy to distinguish between the specific benefit of such interventions and the non specific effects of study participation, which include increased patient attention and motivation (Devries et al 2003).

Self efficacy of patients however gained significantly. The increase in self efficacy as a result of this short-term intervention was considered to be due to patients thinking they could easily perform activities which were expected of them because of knowledge gained about managing their illness by changing self management behaviour. Even so, self efficacy needs be evaluated with long-term interventions to measure the real effect of education.

During the education program, questions related to self management behaviours such as blood glucose self monitoring and exercising were asked so patients could learn from each others experiences and patients' questions were responded to. Anderson-Loftin and Moneyham (2000) also reported that experiential learning was more meaningful and culturally relevant than traditional lecture-based teaching.

Diet was discussed in detail because it constitutes one of the cornerstones of preventing obesity and regulating blood glucose. Norris et al (2001) found collaborative interventions that focused on increasing knowledge demonstrated positive effects on glycaemic control in the short term. The results of this study indicate that dietary factors were not well known by patients, so regulation of blood glucose levels and obesity caused problems that patients had to cope with.

The damaging effects of hyperglycaemia on the eyes were already well known by patients in both the intervention and control groups before the education.

The improvement in the self management behaviour of exercising was notable. There was a significant improvement in walking regularly for 30 minutes or more, which was similar to other studies (Steed 2005; von Goeler et al 2003; Norris 2001; Hendricks 2000).

Blood glucose self monitoring before exercise and testing fasting blood glucose showed only a little progress. Norris et al (2001), Parchman et al (2003) and Steed et al (2005) also found that diabetes education increased the frequency of blood glucose self monitoring and can significantly delay the progression of or reduce the risk of long-term complications associated with type 2 diabetes (Tang et al 2005).

Although not significant, the frequency of inspecting the feet daily increased in the intervention group. This improvement showed that simple and easily practiced behaviours can be performed more frequently than other self management behaviours.

Hendricks et al (2000) and Steed et al (2005) also reported that diabetes self management education improved daily foot care regimens. Also a positive change was observed in weight control in that the number of patients reported to weigh themselves increased.

Norris et al (2002) reported that long-term interventions to ensure long-term maintenance of initial behaviour change are needed.

CONCLUSIONS

Although follow-up occurred only two weeks after the education program, there were some improvements in knowledge, self reported self management behaviour and a significant difference in diabetes self efficacy between the intervention and control groups. This short-term intervention showed that the education program which was developed according to patient's needs could improve patient's management of their illness. However patients should be supported to maintain the self management behaviours long-term. It is recommended that long-term studies are designed to ensure long-term maintenance of self management behaviours and to improve self efficacy.

Limitations of study

This study includes many limitations such as short-term follow-up and lack of maintenance to acquire long-term behavioural change but it encourages education and self efficacy.

RECOMMENDATIONS

Long term patient education programs should be developed on the basis of patients' needs and concerns for long-term follow-up and maintenance.

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Nurse caring in Iran and its relationship with patient satisfaction

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KEY WORDS

Caring, nurse caring, patient satisfaction, CBI, PSI, quality care, Iran, Islam

ABSTRACT

Objective

The aim of this study was to determine the relationship between patients' reports of nurse caring and patient satisfaction with nursing care.

Design

The study used a cross sectional design. The Persian versions of the Revised Caring Behaviors Inventory (CBI) and the Patient Satisfaction Instrument (PSI) were used to establish the strength of association between nurse caring and patient satisfaction with nursing care. Data were analysed using SPSS version 10.

Setting

The setting was the educational hospitals affiliated to Iran University of Medical Sciences (IUMS). Heavy workloads and severe staff shortages are common characteristics of Tehran educational hospitals and the time that nurses previously allotted to direct care has been reduced.

Subjects

Two hundred and fifty patients who were hospitalised for medical conditions or surgical procedures were selected through a quota sampling method during 2007.

Results

The findings indicated a statistically significant relationships between patient reports of nurse caring and satisfaction with nursing care (r=0.72, p=0.000; CI 95%; 178.31-189.99 for the CBI and 82.81-86.71 for the PSI). Male patients were more satisfied with nursing care than female patients. Admissions to hospital during the last five years were positively correlated with patients' perceptions of nurse caring and satisfaction with nursing care.

Conclusion

This study which was carried out in Tehran, Iran supports earlier western evidence that nurse caring is associated with patient satisfaction with nursing care. It is important to reflect on the impact of the current health care environment and cultural religion of Iran on caring behaviors of nurses and patient satisfaction with nursing care. Heavy workloads and severe staff shortages are common characteristics of Tehran educational hospitals and the time that nurses previously allotted to direct care has been reduced which may contribute to changes in patients' perceptions of nurse caring and satisfaction with nursing care possibly reducing the effects of nursing care services. Iranian nurse managers need to consider the religious and cultural barriers to nurse caring and recompense it by providing more human resources.

INTRODUCTION

Acts of caring are said to be essential for human survival and development (Skott and Lundgren 2006). Caring has been widely discussed in the health care professions, especially in nursing which is considered to be one of the caring professions (Boykin and Schoenhofer 2001).

Watson (1985) describes caring as a moral ideal of nursing. According to Watson, caring preserves human dignity in cure dominated health care systems and becomes a standard by which cure is measured (Watson 1988c, p.177). Watson (1979) defined caring as a process involving knowledge, action and consequences and described ten 'carative' factors which can be used to incorporate caring into practice in any clinical setting. Morse et al (1991) represented caring actions as therapeutic interventions and concluded that the expected outcome of caring intervention is improvement in the welfare of patients.

Caring has been attributed to high quality nursing care in acute care settings (Scharf and Caley 1993). In the context of quality, caring is associated with patient satisfaction (Wolf et al 2003; Wolf et al 1998). Campbell et al (2000) in their systems based model for assessing care have pointed to health status and user evaluation as the outcomes of care. The user evaluation component in their model is composed of patient enablement and satisfaction. Research literature indicates that the assessment of quality of care from the patient's perspective has been operationalised as patient satisfaction (Dufrene 2000).

Nurse caring has been related to patient satisfaction in western literature (Wolf et al 2003; Wolf et al 1998; Forbes and Brown 1995; Boyle et al 1989). However researchers in Iran have not linked patients' reports of nurse caring to the outcome of patient satisfaction with nursing care.

It is important to examine the relationships of nurse caring to patient satisfaction in Tehran (the capital of Iran) because severe staff shortages, heavy workload, and low salaries in Tehran educational hospitals have dramatically reduced nurse motivation and the time allotted for direct care (Rafii et al 2007) which in turn may reduce the effects of nursing care services. Furthermore there are some religious and cultural barriers to nurse caring in Iran. Iranian women are culturally unwilling to spend time with men who are not members of their family. Consequently nurses (especially female nurses) in Persian culture and the Islam religion are hesitant about spending time with patients of the opposite sex. Touching the patient to communicate caring is also forbidden in the Islamic religion except for performing a special task or procedure, usually with gloves. Moreover it is not respectable in Persian culture to call people (except children) by their first name, yet nurses are expected to do so. Helping the patient to grow is possible only through a therapeutic relationship between the nurse and the patient which is not acceptable between a man and a woman who are not related in Persian culture. These cultural and religious barriers may reduce the effect of nursing care services by reducing the caring encounters between nurses and patients in Tehran.

The purpose of this study was to examine the relationship between patients' reports of nurse caring and their satisfaction with nursing care within the context of hospitals affiliated to Iran university of Medical Sciences in Tehran.

REVIEW OF THE LITERATURE

Caring relationships and caring environments preserve the dignity, wholeness and integrity of individuals (Watson 1979). Thus caring could be associated with patient outcomes, including recovery of functional status, symptom relief, enablement and satisfaction.

Caring is directed toward the welfare of the patient and takes place when nurses respond to patients in a caring situation (Wolf et al 1994; Wolf 1986; Gaut 1983; Watson 1979). Patient satisfaction, as one of the ultimate validators of effectiveness and quality of care (Donabedian 1992), is defined as the patient's opinion of the care received from nursing staff working in hospitals (Hinshaw and Atwood 1981).

Cronin and Harrison (1988) used Watson's 'carative' factors (Watson 1979) to develop the Caring Behaviors Assessment tool (CBA) to measure the importance of nurse caring behaviors as perceived by 22 patients post myocardial infarction. They also found that demonstration of professional competence as displayed during patient monitoring activities was viewed by subjects as most characteristic of caring. When these results are compared to the results of studies investigating nurses' perceptions of the importance of caring behaviours, differences are evident. Research by Larson (1986) using the Care- Q instrument on a sample of 75 cancer nurse found these nurses perceived the expressive forms of caring to be most important. However it is acknowledged that conclusions drawn by comparing results of studies conducted on different sample groups (ie nurses or patients) in different care settings and using different instruments (ie CARE- Q, CBA or CBI) are not conclusive.

Patient satisfaction studies include such topics as: patient' perception of providers' care; competence of providers; factors involving arrangements to receive medical care; pleasantness of environment; regularity of care; and the helpfulness of providers in improving or maintaining patient care status (Simpson et al 1995). Zhang et al (2001) described nursing competencies that contributed to effective nursing performance and patient satisfaction. The results indicated that interpersonal understanding is the most important characteristics for effective nursing performance. The authors concluded that individual nurses need to know the thoughts, feelings and attitudes of their patients. Fitzpatrick (1991) in a survey to determine patients' satisfaction with nursing care noted that responses received focused on the qualities that the patients expected of nurses. The selected qualities were: a friendly personality, kindness, dedication to duty, knowledge of the patient, a fast response to the patients' needs and adequate time to provide care.

The classic Donabedian (1992) quality of care model postulates that care outcomes (eg patient satisfaction) are influenced by the structure (eg staffing) and process of care (eg clinical activities and interpersonal care). The central problem here is separating outcomes that result from nursing as opposed to medical or other intervention or the patients' personal resources (Redfern and Norman 1990). However Mc Givern (1999) asserted that nursing care has a greater influence on patient satisfaction with health care services as compared to other providers' interventions.

In an investigation of the relationship of patient satisfaction with nursing care, Mahon (1996) concluded, *"Quality of care as measured by patient satisfaction is most closely tied to patient satisfaction with the quality of nursing care because most health care is nursing care"* (p.1243). Using the Care Satisfaction Questionnaire, Larson and Ferketich (1993) explored the perceptions of hospitalised adult medical-surgical patients (n=268) with nurses' care. The results implied that patients can respond objectively to questions about the caring dimensions of their nursing care, but these responses do not necessarily translate into an indicator of patient satisfaction. Valentine (1997) reviewed professional nurse caring as a holistic nursing process and related it to cost of services. Results indicated that patients were concerned about humane treatment as compared to cost, convenience and time of care. Nursing services and nurse attitudes strongly influenced patient satisfaction, leading Valentine to the conclusion that consumers' choices of where to seek health care were influenced by positive experiences with nurse caring behaviors.

Using an ex post facto design, Wolf et al (1998) investigated the relationship between former patients' (n=335) reports of nurse caring and patient satisfaction. Nurse caring was measured with the revised Caring Behaviors Inventory (CBI) (Wolf et al 1994) and patient satisfaction with nursing care was assessed by Patient Satisfaction Instrument (PSI) (Hinshaw and Atwood 1981). A strong positive correlation (r=0.78, p<0.001) was found between nurse caring and patient satisfaction with nursing care. Based on the results, the investigators inferred

that *"the performance of the nurses' especially the behaviors indicative of nurse caring, is integral to the quality of the experience encountered when patients are admitted for medical and surgical conditions"* (p.104). Wolf et al (2003) conducted a correlational study aimed at examining the relationship between cardiac patients' (n=73) reports of nurse caring and satisfaction with nursing care. Nurse caring and patient satisfaction was measured with the CBI (Wolf et al 1994) and PSI (Hinshaw and Atwood 1981) respectively. A moderately strong relationship (r= 0.53, p=0.01) between caring and satisfaction was found. The researchers commented that, since caring is considered fundamental to the nature of nursing, practicing nurses must appreciate its connection to outcomes, such as patient satisfaction.

As mentioned earlier, some behaviors that are considered as caring in western culture are not permissible in Islamic countries like Iran. As an example, touching a female patient with the aim of conveying empathy by a male nurse and vice versa is religiously prohibited in Iran and it may partly influence the perception of some aspects of nurse caring by patients.

METHOD

The purpose of this study was to examine the relationship between hospitalised patients' reports of nurse caring and patient satisfaction using a cross-sectional design. The revised Caring Behaviors Inventory (CBI) (Wolf et al 1994) and the Patient Satisfaction Instrument (PSI) (Hinshaw and Atwood 1981), based on Risser's (1975) work, were used to measure the two variables, the dependent variable being patient satisfaction with nursing care. This construct was measured using the Patient Satisfaction Instrument (Hinshaw and Atwood 1981; Hinshaw et al 1981; Risser 1975). Risser's premise held that it is necessary to evaluate nursing care from the patient's perspective in order to obtain a complete view of nurse-client interaction. The study hypothesised that patients' perceptions of nurse caring is associated with their satisfaction

with nursing care. The relationships among some demographic characteristics of the subjects and their perceived nurse caring and satisfaction with nursing care were also assessed.

Two hundred and fifty adult patients including males and females hospitalised in medical-surgical wards of hospitals affiliated to Iran University of Medical Sciences (IUMS) were recruited through a quota sampling method (Macnee and McCabe 2007). The inclusion criteria were: at least 18 years of age, Persian speaking, and hospitalisation for three days or more. The exclusion criterion was any barrier by the subjects to responding to interview questions or completing the questionnaires.

The study was approved for human subjects' participation by the institutional review board of IUMS, as well as the nursing research committee of the university; subjects gave written consent for participation in the study. Permissions for using the CBI and PSI were obtained from Professor Wolf and Professor Hinshaw (who developed the respective instruments).

The Caring Behaviors Inventory (CBI) (Wolf et al 1994; Wolf 1986) includes 42 items and is scaled with a six point Likert scale to elicit responses (1=never; 2=almost never; 3=occasionally; 4=usually; 5=almost usually; 6=always). Patients respond to each CBI item by indicating the extent to which they experienced nurse caring during their current hospital stay. The five dimensions or subscales of nurse caring on the CBI include respectful deference to others (12 items), assurance of human presence (12 items), positive connectedness (9 items), professional knowledge and skill (5 items), and attentiveness to the other's experience (4 items).

Patient satisfaction with nursing care was measured with the PSI developed by Hinshaw and Atwood (1981) and based on Risser's (1975) instrument. The instrument comprises 25 items. The following dimensions of patient satisfaction are included in the instrument: technical-professional care (7 items), trust (11 items), and patient education (7 items). The

instrument uses a five point Likert scale (5=strongly agree; 4=agree; 3=uncertain; 2=disagree; 1=strongly disagree) to elicit responses. The patient profile section of the instrument was also completed.

Test-retest reliability, internal consistency reliability (α=0.98) and construct validity of the CBI have been previously established (Wolf et al 2003). The reliability and validity of the PSI are well established. For the purpose of this study, CBI and PSI were back translated. Ten faculty members of IUMS verified the face and content validity of the translated versions of the instruments. A pilot study with 20 medical and surgical patients was conducted to ensure internal consistency reliability of the translated versions of the CBI and PSI. The result was 0.92 for CBI and 0.90 for PSI. This data was not used in the final study. The internal consistency reliability was 0.97 for CBI, and 0.90 for PSI in this study (n=250). Correlations among CBI dimensions as well as correlation among PSI subscales were computed. They are found in tables

1 and 2. Individual item responses were summed to calculate the total CBI and PSI scores. Subscale totals and alpha coefficients were also computed which are found in table 3.

Data were collected during 2007. The sample of each ward was calculated based on the number of its beds (Macnee and Mc Cabe 2007). The male and female patients were recruited alternately to make the sample more representative of the population under study (the percent of males and females was relatively equal in the study population) (Macnee and McCabe 2007). Literate subjects were interviewed and their exact responses were transferred to the instruments. Data were analysed using SPSS- PC version 10.0.

FINDINGS

Tables 1 and 2 demonstrate the correlations among CBI dimensions as well as correlation among PSI subscales.

Table 1: Correlations among Caring Behaviors Inventory Dimensions (n=250)

Dimension	Respectful deference to other	Assurance of human presence	Positive connectedness	Professional knowledge and skill	Attentiveness to other's experience
Respectful deference to other	1.00				
Assurance of human presence	*0.84	1.00			
Positive connectedness	*0.89	*0.86	1.00		
Professional knowledge and skill	*0.75	*0.80	*0.74	1.00	
Attentiveness to other's experience	*0.79	*0.83	*0.77	*0.73	1.00

*Correlation is significant at the p=0.01 level (2- tailed)

Table 2: Correlations among Patient Satisfaction Inventory Dimensions (n= 250)

Dimension	Technical-professional care	Trust	Patient education
Technical-professional care	1.00		
Trust	*0.80	1.00	
Patient education	*0.79	*0.73	1.00

*Correlation is significant at the p=0.01 level (2- tailed)

Subscale totals and alpha coefficients are found in table 3.

Table 3: Mean (M), Standard Deviations (SD), Ranges, and Alpha Coefficients for CBI and PSI (N= 250)

Subscale	M	SD	Range	Alpha
CBI				
Respectful deference to other	51.06	13.63	13.0-72.0	0.901
Assurance of human presence	52.24	14.89	12.0-72.0	0.944
Positive connectedness	42.86	12.45	10.0-60.0	0.906
Professional knowledge and skill	24.56	5.51	5.0-30.0	0.876
Attentiveness to other's experience	17.66	5.01	4.0-24.0	0.845
Overall	184.14	46.90	43.0-252.0	0.976
PSI				
Technical-professional care	25.51	5.20	8.0-35.0	0.782
Trust	36.68	6.64	15.0-53.0	0.744
Patient education	22.56	5.09	7.0-34.0	0.724
Overall	84.76	15.65	37.0-119.0	0.901

Table 4 includes the demographic characteristics of the sample. The number of male and female patients was equal (males n=125, females n=125); most of the participants (60.8%) were married; had an elementary or secondary education; were tradesman or housewives; and enjoyed a reasonable financial status (67.2%). Most participants had not been hospitalised during the last five years and had positive experiences with their previous hospitalisation where relevant (57.65%). The duration of the current hospitalisation was less than seven days for most of patients (63.2%). Most participants neither had surgery (53.6%) nor expected an operation (75.6%) in their current hospitalisation.

Table 4: Demographic characteristics of sample (n=250)

Characteristics		Mean	SD	Range	n	%
Age		40.44	18.1	18-95		
Sex	Female				125	50
	Male				125	50
Marital status	Single				81	32.6
	Married				152	60.8
	Widowed				14	5.6
	Divorced				3	1.2
Educational level	Literate				24	9.6
	Elementary				116	46.4
	Secondary education				72	28.8
	Higher education				38	15.2
Job	Jobless				45	18
	Housewife				70	28
	Worker				29	11.6
	Employee				31	12.4
	Tradesman				75	30

Table 4: Demographic characteristics of sample (n=250), *continued...*

Characteristics		Mean	SD	Range	n	%
Income	Low				27	10.8
	Sufficient				168	67.2
	High				54	21.6
	Too much				1	0.4
Ward	Medical				39	15.6
	Surgical				34	13.6
	Cardiac				10	4
	Neurology				18	7.2
	Nephrology and Urology				47	18
	Orthopedic				70	28
	EENT				32	12.8
Admissions to hospital in last 5 years	Yes				111	44.4
	No				139	55.6
Number of admissions to hospital in last 5 years		2.23	1.77	Jan-14		
Previous experience with hospitalisation	Very bad				2	1.8
	Bad				8	7.22
	Not so god				27	24.32
	Good				64	57.65
	Very good				10	9.01
Duration of current hospitalisation	3-6 days				158	63.2
	7-13 days				57	22.8
	14-20 days	10.99	6.23	Mar-28	18	7.2
	More than 20 days				17	6.8
Surgery in current hospitalisation	Yes				116	46.4
	No				134	53.6
Expectation for surgery in current hospitalisation	Yes				61	24.4
	No				189	75.6

Figure 1: Scatter diagram of patients' perceptions of nurse caring behaviours and patient satisfaction
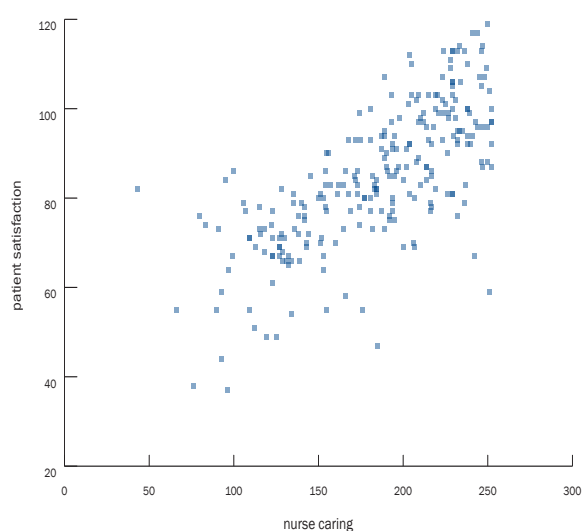
The CBI (M= 184.14; SD= 46.90) and PSI (M= 84.76; SD= 15. 65) scores were totaled from item responses. Confidence intervals (95%) were 178.31-189.99 for the CBI and 82.81-86.71 for the PSI. The Pearson Product Moment Correlation Coefficient (Macnee and McCabe 2007) was used to test the hypothesis that nurse caring was related to patient satisfaction. There was a positive, high, significant correlation between nurse caring and satisfaction with nursing care (r=0.72; p=0.000) (figure 1).

To test statistically significant differences between demographic characteristics of subjects, their reports of nurse caring, and satisfaction with nursing care, two- tailed independent t-tests and one way

ANOVA were calculated (equal variances assumed) (Macnee and Mc Cabe 2007). Statistically significant differences were found for nurse caring (t=2.683, df=248, p=0.008); patient satisfaction (t=2.571, df=248, p=0.01); admission to hospital during the last five years and for patient satisfaction and patient sex (t=2.962, df=248, p= 0.003).

DISCUSSION

The results suggest that a statistically significant relationship exists between patient reports of nurse caring and satisfaction with nursing care (r=0.72, p=0.000) (figure 1). This supports the findings of Duffy (1990) who reported that the more nurses were considered to be caring the greater was patient satisfaction with nursing care. Stallins (1996) also examined the relationship between nurse caring behaviors and patient satisfaction and found a strong correlation (r=0.73, p<0.001) between these two variables.

Comparing the results of this study with A similar study conducted by Wolf et al (1998) found a higher level of nurse caring behaviours by former patients (M=203.92, SD=34.35). Furthermore, patients in Wolf et al (1998) study were more satisfied with nursing care (M=94.86, SD=12.91). This difference could be related to the structural features of care in the studied hospitals. It has been suggested that hospital organisational forms and operant mechanisms are likely to result in better patient outcomes, implicitly due to better nursing care (Chang et al 2002). On the other hand, severe staff shortages and heavy workloads which are of common characteristics of Tehran educational hospitals (Rafii et al 2007) could decrease the time for direct patient care. Nurses in Tehran consider there is a staffing crisis and that poor staffing results in decreased quality of care and dissatisfaction of patients (Rafii et al 2004). Wolf et al (1998) considers that reductions in nursing personnel and time for nursing care compromise the patient's sense that nurses voluntarily return to the bedside unless a treatment or procedure motivates them to do so. Furthermore, the religious and cultural barriers to nurse caring in Iran could have partly influenced the patients' perception of nurse caring and their satisfaction with nursing care. Nurses' religious beliefs such as fear of divine retribution might have modified their caring behaviours in the presence of organisational pressures and cultural limitations (Rafii et al 2007).

Patients with a history of admission to hospital during the last five years found nurses more caring and were also more satisfied with nursing care. It seems that more hospitalisations increase patients' opportunities for receiving nurses' care and observing their caring behaviours. Accordingly Wolf et al (1998) shorter lengths of stay in hospital may contribute to changes in patients' perceptions of nurse caring and satisfaction with nursing care. Moreover, most patients had positive experiences with hospitalisation (table 1) which would contribute to their satisfaction with nursing care.

Male patients were more satisfied with nursing care than females. The finding agrees with McGivern's (1999) study of patient satisfaction with quality of care. It has been suggested that men have fewer expectations than women and that male patients spontaneously receive more information from nursing staff than female patients (Johansson et al 2002). This in turn could contribute to their higher satisfaction with nursing care, although Wolf et al (2003) found no differences in nurse caring and patient satisfaction for male versus female cardiac patients.

LIMITATIONS

The finding of this study should be viewed with caution, since the sample was not chosen by a random technique. Furthermore, the sample was not homogenous by medical diagnoses or surgical procedures.

CONCLUSION

Nurses who care for adult patients could consider the influence that caring activities have on patients' perceptions of nurse caring behavior. Negative experiences with nursing staff may well negatively

influence perceptions of the entire hospital experience regardless of an overall positive experience and outcome. Moreover, patients may respond very positively to nursing care when they perceive that their welfare is a primary concern of nursing staff. Medical-surgical nurses might consider most of their contacts with patients as snapshot opportunities in which caring behaviours can be demonstrated (Wolf et al 1998).

Nursing managers and bedside nurses have a leadership role to play in ensuring that the 'caring ' component of nursing is enhanced despite workplace pressures which have the potential to reduce nursing to a collection of tasks and procedures. Moreover, increased emphasis on the moral, ethical and religious aspects of nurse caring and attributing more importance to the religious beliefs of Moslem nurses working in Tehran hospitals may be helpful in increasing the levels of patient satisfaction with nursing care.

The relationship between nurse caring and patient satisfaction with nursing care that was evident in this study and other western studies reveals that nurses from other countries who care for adult patients could consider the influence that caring activities have on patients' perceptions of nursing care.

RECOMMENDATIONS

Since patient satisfaction with nursing care and nurse caring may be influenced by many variables further qualitative studies are recommended to fully capture the realities of these two constructs especially in the context of Islamic countries. It may be beneficial to investigate more homogenous samples of patients, admitted for specific medical conditions or surgical procedures, to determine the association between patient rankings of nurse caring and patient satisfaction. Additionally, it may be useful to examine whether a difference exists in perceptions of nurse caring when male or female nurses provide care for Moslem patients.

In summary, this study supports earlier evidence that nurse caring is associated with patient satisfaction with nursing care. It is important to reflect on the impact of current health care environment of Iran on these variables.

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Finding a way: a grounded theory of young people's experience of the pathway to mental health care

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KEY WORDS

Accessing care, first episode, grounded theory, analysis, mental health nursing, young people

ABSTRACT

Objective
The purpose of this grounded theory study was to explore how young people experienced the onset of mental health problems and to investigate their initial interactions with the health system.

Design
Grounded theory was used to address the study objectives. Data were obtained through in-depth semi-structured interviews.

Setting
Participants were recruited through two community health centres in a Sydney metropolitan area health service.

Subjects
The purposive sample consisted of eight males and twelve females between the ages of eighteen and twenty five (mean age was 21).

Main outcome measures
The research identified a basic social process, a core category or central phenomenon which had the characteristics of a maze through which the participants had to struggle to find a way. The process of 'finding a way' has four stages. These are (a) first sign in the early stages, often involving denial or fear, and self-medication with alcohol or other drugs; (b) recognition of the symptoms as a sign of mental illness; (c) understanding, discovering information about the illness; and (d) resolution, when care is successfully accessed. At each stage, barriers and/or facilitating factors either delay or speed progress.

Conclusions
The study offers insights into the experiences of a small group of individuals and hence has limitations; however this theoretical approach provides an understanding of what 'finding a way' means to this group of participants and how it influences their lives. It offers a framework for understanding some of the cultural and contextual factors that affect young people's pathways into mental health services and can inform interventions.

INTRODUCTION

Mental health is a major public health issue, particularly for young people. The last National Survey of Mental Health and Wellbeing, currently being updated, showed that the prevalence of mental health disorder among young people aged 18 to 24 years was 27% (AIHW 2007). Early intervention for this group is extremely important to alleviate the considerable personal and public burdens associated with neglecting mental illness. These burdens include increased suicide, drug and alcohol misuse and homelessness (Farmer et al 2003).

To assist young people with mental illness and to be able to intervene effectively, primary care health professionals such as general medical practitioners (GPs) and nurses need to be able to understand the experiences that young adult consumers go through. However previous studies have tended to focus more on what happens after consumers have come into contact with health professionals in the health care system (Sheppard and Benjamin-Coleman 2001; Carlton and Deane 2000; Rickwood 2000). This study therefore, was concerned with what happens to young people as they begin to experience symptoms; how they make sense of them; where they go for help; and what delays them or assists them in completing their 'pathway' to care.

The study had two aims. The first, which is reported here, was to use grounded theory to explore and develop a substantive theory to explain how young people experience the onset of mental illness and manage their initial interactions with the health care system. Previous research had suggested that this was a difficult, often protracted, time. Early commencement of psychiatric treatment is considered to assist recovery significantly, while delays result in higher direct and indirect treatment costs and subjective suffering (Sourander et al 2001). Emmerson et al (2006) have suggested that the mental health system might be better described as a maze or as a 'non-system', because it requires manoeuvring skills on the part of the individual to successfully enter treatment.

The second aim of the research, which has already been reported (Webster and Harrison 2008), was to use these findings to construct a pre-care model that can be used by nurses and other health care professionals to design appropriate interventions.

LITERATURE REVIEW

Qualitative research is comparatively rare in this area though growing in importance. The literature from Australia is limited and none uses the full grounded theory protocol. Several recent research studies from Canada and the UK reflect a growing interest in the use of qualitative research to understand the experiences of consumers with mental health problems as well as their perceptions of and interactions with health care services. A small number are reviewed below.

Sourander et al (2001) employed self-report evaluation of families and teachers in the community to evaluate psychopathology, help-seeking variables, and family factors in the use of mental health services. The study emphasised that a greater understanding of a families' psychology and family disruptions was associated with increased service use. The authors concluded that the rating scale approach they used offers useful information but lacks the specificity that in-depth interview formats might provide.

Timlin-Scalera et al's (2003) grounded theory study of a select group of young people (white males) explored help-seeking behaviours and aimed to understand the factors involved with the participants' decision to seek help or not. What emerged were communal pressures to obtain wealth and be successful; high expectations that created a tremendous amount of stress for males and contributed to a gender-linked stigma about males' help-seeking behaviours. The study has implications for health service providers to be more sensitive to this population's needs and to explore potential barriers which prevent help seeking.

A grounded theory study by McCann and Clark (2003) looked into the role that nurses play in increasing clients' willingness to access community mental health. Although it had a very small sample (2), its

findings are supported by earlier studies promoting early intervention to care and treatment as being essential for recovery. The findings showed that health care professionals need to recognise the importance of the care-giver's relationship with the client and their intimate insight into the client's behaviour when assessing client risk. The study highlighted the importance of the nurses' role, the impact of workloads, levels of clinical competence and time management skills in clinical practice.

Stigma about mental illness remains high in the community and can affect the willingness of clients to access services. Addressing this issue, Pescosolido et al (2007) discussed a common perception linking people with certain forms of mental illness, particularly depression and psychosis, with potential violence and danger. This may occur because some people with mental illness are seen to be coerced into legally mandated treatment. The authors consider that the perceived link between dangerousness and coercion warrants further research, because this is one likely cause of stigma.

Much more research remains to be done from the perspective of the client in terms of their experiences of mental health services. For example, although there is increasing recognition of the existence of 'difficult' clients who present particular challenges to mental health, to date no research has been conducted into their perceptions of services and their experiences of nursing care (Breeze and Repper 2002).

METHODOLOGY

A grounded theory design was chosen for this retrospective study because the aim was to make sense of the situation without imposing pre-existing expectations. Grounded theory is an approach based on theory development. The researcher seeks to gather data to add to and enhance an existing body of information with the aim of explaining what is happening. A key aspect of grounded theory is the interrelationship between the collection, coding and analysis of data which is carried out concurrently.

PARTICIPANTS

The study involved the participation of 20 young people, eight males and 12 females, aged between 18 and 25 years, who were experiencing mental health problems for the first time. Criteria for inclusion were: first-time referral to a community mental health centre; ability to describe 'reality'; give written informed consent; articulate in English; and consent to tape-recorded interviews and follow-ups. The potential impact of being interviewed (eg that it may or may not trigger psychological distress) was explained.

Potential participants were given information about the study by health professionals who were aware of the inclusion criteria. Participants then contacted the researcher and signed a consent form. They were interviewed privately, either in their homes or at a community health centre. Debriefing was offered at each interview and the participants were supplied with a resources list.

ETHICS

The study was approved by the Human Research Ethics Committees of the University of Wollongong and the area health service from which the participants were drawn. Participants were given pseudonyms to ensure privacy when reporting the data.

DATA COLLECTION AND ANALYSIS

The open-ended questions allowed participants to talk about their experiences from their perspective. For example: what made you realise something was wrong; could you describe what the experience was like for you; etc. Consistent with the procedures of constant comparative analysis (Strauss and Corbin 1990; Glaser and Strauss 1967), the questions became more focused as the analysis continued and the findings emerged. This process continued until theoretical saturation was reached, which means that no new data were found that added to the analysis (Strauss and Corbin 1998). Theoretical saturation was evident after examining 16 transcripts. The

remaining four confirmed and refined the analysis, but did not contribute new insights. The data were managed with the use of the computer software program NVivo (Richards 1999).

Strauss and Corbin's (1990) method was used in the analysis process. Data were coded and each piece of data compared so that similarities and difference in phenomena were distinguished. This method was applied at three different levels of analysis (called open, axial, and selective coding) and resulted in increasing levels of interpretation and abstraction. Although the processes are separate coding procedures, the researcher moves back and forth between these procedures throughout the data analyses. Concepts are grouped into categories according to their characteristics or properties and relationships between categories are identified.

The aim is to achieve a dense but parsimonious explanatory theory accounting for as much variation in the experiences of the participants as possible.

RIGOR

The criteria for rigor includes strict adherence to the method as well as validation of the results. This was done in two ways: through the participants to ensure accuracy; and with clinicians to ensure clinical application. To help ensure the credibility of data, eight of the twenty participants reviewed the exhaustive description of 'finding a way' to validate that it accurately captured the essence of their lived experience. Similarly, findings were presented to meetings of mental health professionals from the health service involved in the research and at conferences.

Figure 1: Four-stage process of 'finding a way' (format of model suggested by Beck 1993)
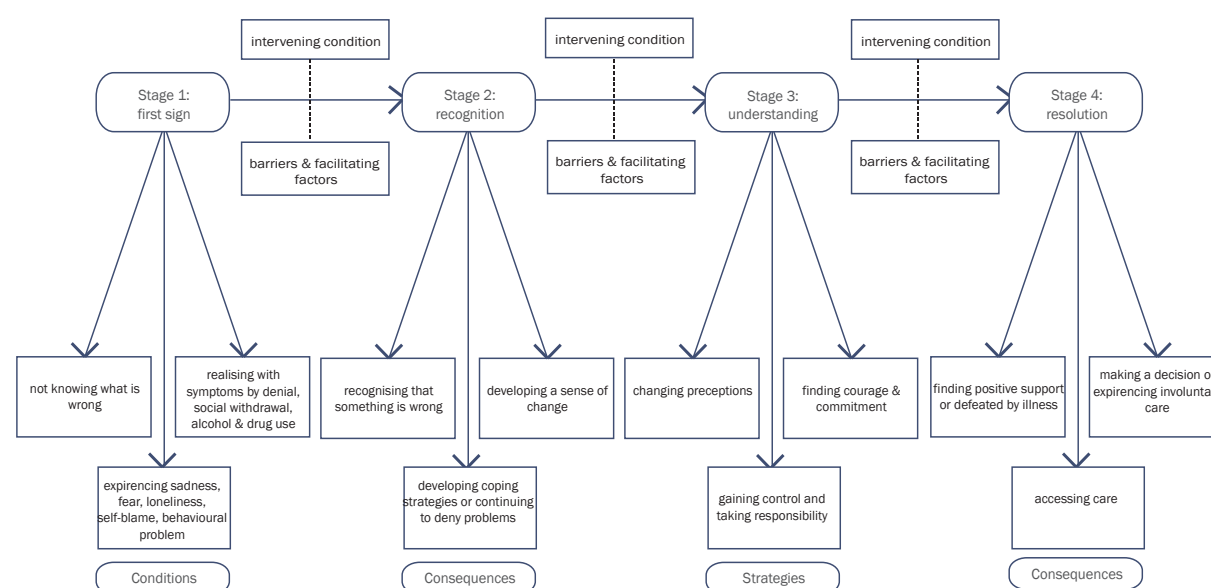
FINDINGS

The findings showed that young people experienced a basic social problem, a central phenomenon which had the characteristics of a maze through which the participants had to struggle to find a way. The process of 'finding a way' has four stages, shown in figure 1. At each stage, barriers and/or facilitating factors (intervening conditions), which are to be found in their social, personal and health-care environments, could delay or speed progress.

'Finding a way' indicates the life-changing process that the participants undergo in response to and as a result of the onset of mental health problems. Not all participants experienced each stage in the process, but all at some point experienced barriers which impeded their progress to care and factors which facilitated their movement from one step to the next. These could occur at any stage of the process depending on the life circumstances of the participants. Although these life circumstances

are to some extent peculiar to the individual, there are common patterns and themes which allow development of interventions aimed at removing barriers and supporting facilitating factors.

Stage 1: First sign

The first stage was characterised by the participants not knowing what was wrong, and experiencing sadness, fear, loneliness and self-blame. They had to find a way through the first sign (causal conditions) of debilitating symptoms which they could not initially understand and which they dealt with poorly, by behaviour such as denial, social withdrawal, alcohol and other drug use.

The central idea is the period of time associated with a set of experiences that marked a change from the participants' previous way of dealing with life events and interacting with others. The feelings they experienced at the time were inchoate, but which were later identified by the participants in their accounts as the onset of their mental health problems.

I guess when I started to have weird thoughts, like ... it came on very quickly, but it only lasted a week or so, like a fit of rage (Laura)

Participants described a variety of symptoms, ranging from paranoia to auditory and visual hallucinations, delusions, anxiety and depression. Denial was a fairly common response to the emergence of symptoms for many of the participants as Rickwood et al have reported (2005). Other people might notice the symptoms and realise that the young person needed help before the person themself. Some of the young people cast around for other reasons to explain away what they were experiencing. While this may be characterised as denial, it can also mean a lack of information or knowledge about mental illness. Denial is the greatest barrier and is expressed as repudiation of having the symptoms and the need for intervention. Denial can occur at any point of the illness and can be used as a way of coping. Many participants identified denial as a defence when the symptoms emerged.

I had some idea what was wrong with me, but I didn't want to hear about that. It was real upsetting to me. I didn't want to know (Nat).

The way participants handled the causal condition depended on their social context, the extent to which their feelings and changed behaviours were recognised and dealt with by their families and, to a lesser extent, their friends. Their actions had a number of consequences for them, mostly unintended. They experienced feelings of isolation, loss, confusion, low self-esteem, depression and other unpleasant outcomes such as relationship break-ups. Many explained that, at times, as a result of their symptoms, they felt that life was not worth living and contemplated death as an alternative, to end their living nightmare; five participants did attempt suicide, some more than once.

Stage 2: Recognition

The dawn of recognition (the consequences of the causal conditions) is characterised by the individual developing a sense of change as a result of the illness which has altered themselves and their personal relationships. The participants began to develop coping strategies while continuing to experience the distressing emotions and symptoms associated with their illness. They could no longer deny that something was wrong, but although this knowledge could be experienced as devastating, at the same time it could lead to personal growth and the discovery of resilience.

The recognition that something was wrong occurred through an awareness either of the increasing intensity of their symptoms, or of their increased difficulty in coping with life. For example, participants deliberately avoided situations they would have previously enjoyed, worried what others would think of them. They felt out of touch with reality and knew it. As a result of this recognition, the timing of which depended on social, personal and familial contexts, participants began to develop a sense of change. Some with supportive social contexts and with personal insight into their problems developed a sense of resilience; they began to seek out information and tried to come to terms with their symptoms in various ways. For others, recognition of 'something is wrong' brought increased loneliness and loss of self-confidence and they tried to persist with their earlier strategies of denial and

self-medication with alcohol and other drugs. For these participants, the consequences were, in many respects, a continuation of their previous experiences, including altered personal relationships, especially with partners. They were less likely to attempt to seek out help at this stage than were the participants whose sense of change included actions (such as seeking information) which allowed them to develop more effective coping strategies.

The sense of loss and grief the participants experienced when they began to realise something was wrong was intensified when they recognised that what they had was a mental disorder. They described becoming painfully aware of the chronic trajectory of their illness.

I've lost my hope and dream of having a family and a career. I mourn about long term-loss, a future loss. With this, the mentally ill person …, that mourning never really quits (Mary).

However growth in personal attitudes and individual coping strategies are also elements of this recognition phase. These are often dependent on an empathic family and on peer support. Because of the fear surrounding mental illness, people in its early stages need to trust and to receive reassurance from their families, and from their peers.

The only way I would go anywhere was if my mother took me, since my mother was the only person I trusted. If she suggested something, I would say OK (John).

Enlightenment could come from an unlikely source.

I saw the movie of Russel Crowe … he played the person with a mental health problem … I had suspected for a long time that something was wrong with me (Nat).

Stage 3: Understanding
Understanding is characterised by strategies for action: gaining control and taking responsibility. Many participants found courage and commitment during this stage, and learned acceptance.

Understanding was characterised by the participants changing their perceptions of their illness as a result of connecting with others, choosing to accept help and trusting they would understand. These participants wanted to gain control of their lives by seeking out the right support and professional help, not always successfully, but they found the courage and commitment to keep going. The minority who failed to develop effective coping strategies and who continued to experience devastating symptoms and self-destructive behaviours were more likely not to enter this stage in their progress to care. They did not experience the causal conditions which led to understanding. On their own, they could not take control.

The impact of the illness is significant on individuals' lives during this time. It may be that fear and loss of control escalate to the point where seeking help, or being made to accept help, is the only option. For some, this means that through personal growth and the development of more effective coping strategies, they become receptive to sources of information and assistance.

I started to think, oh God help me; I've got to change my life, somehow. Look where I am now, you know (Catie).

Committing involves a sense of obligation to engage on a course of treatment to alleviate symptoms. By this stage, many of the participants were well on their way to accessing effective care, beginning the search once they had recognised they had a mental illness. They could make judgements about whether their present care was appropriate or not and they continued to be determined to find what worked for them.

I just was determined that I was going to be the one that recovered … the therapy cost me heaps, but I was getting nowhere (George).

George likened the committing part of the process to learning to live with any chronic illness; it requires commitment to treatment, but also acceptance.

I just try to get some acceptance that this is how I have to live my life (George).

Courage is defined as the participants' strength in this process of understanding the illness. It was having courage that motivated the participants to seek help, and finally to successfully access care.

I think I have had this illness for some time now, and I have been utterly destitute many times … I've managed to survive, but since I had the courage to walk into the community health centre … my life changed for the better (Joe).

Stage 4: Resolution
Resolution is the consequences of the strategies, both intended and unintended, which is the final stage in the process. For some this meant they were able to find supportive care as a result of their determined attempts, while others experienced the trauma of involuntary commitment. Resolution is the final stage, when all the participants accessed appropriate care. Some, as a result of their decision-making and help seeking, were able to find positive support and appropriate treatment. Others were defeated by the symptoms of their condition and experienced the trauma of involuntary commitment to care.

Among this group of participants, the length of time from first sign to resolution varied from two weeks to 12 years, depending on the individual and the contributing factors in their lives. Some had had contact with two or more health professionals, mainly general medical practitioners (GPs), for extended periods without effective resolution.

I knew from when I was little, 10 years old that I can't cope with pressure well. I panic instead of trying to work through things and my depression is intertwined with anorexia and bulimia. I was not formally diagnosed. I saw GPs and a few psychologists through the years, but they never mentioned that I have depression. I have only experienced since last year or so. ….. I have an abusive father so it's just coming through now. I went to community health because I couldn't work any more … they said I have depression (Catie).

An issue raised by participants was the impact of their initial experience of the hospitalisation process, especially if it included aspects such as police involvement, a seclusion room and an emergency ward. McGorry et al (1991) have argued that the experience of scheduling which is traumatic and coercive can deter people from seeking help in the future. Police were involved with five of the participants; a quarter of the group. Coercive services, such as involuntary hospitalisation, reinforced feelings of powerlessness, as indicated by the use of the word 'drag':

The most frightening thing is not knowing what's going on and to find myself being dragged to the unit in the police van (Cath).

The fifth major category: called 'barriers and facilitators' to care, refers to the processes and factors which the participants identified in their accounts as accelerating or impeding their progress to care. These were often recounted by the participants in terms of particular incidents that prevented or allowed them to achieve a goal or purpose.

Facilitating factors also allow movement from one stage of the process to care to the next. To some extent, both barriers and facilitating factors are peculiar to the individual and depend on their unique circumstances. This is demonstrated, for example, by the wide variation in the length of time it took participants to progress from first sign to resolution, however there were common experiences and common responses which allowed patterns to become apparent. This is important since, to be useful, the theory must indicate when and what type of intervention would be appropriate. Barriers to care need to be identified and, as far as possible, removed or attenuated; facilitating factors should be assisted and strengthened. For example, family dynamics often influenced the extent to which parents made decisions for their children, or allowed them to make their own. This could delay or expedite help seeking.

My dad is the decision-maker at home. I don't mind listening to friends, but ultimately Dad has to okay it (Mark).

Some families have difficulty differentiating between the early symptoms of mental illness and 'normal but difficult' behaviour which they expect from young people. In addition, young people may be made fearful by their initial experience of the illness especially when positive support from family and friends is not available. They and their families tend to fear the stigma which still accompanies a diagnosis of mental illness.

There is a shame attached to this condition … All of a sudden it goes bang … [and] you're stuck with it for the rest of your life (Catie).

Another barrier is presented by some health professionals themselves, which can result in ineffectual treatment. While this in part relates to the unstable profile of the early symptoms of the illness, participants reported a number of other issues such as limited assessments and failure to elicit key information. This may relate both to their inability to describe their own symptoms in concrete terms and to the lack of flexibility and persistence shown by health professionals during the assessment process. This can result in a failure to detect a mental health problem or a substance abuse disorder. Many consumers became disillusioned and did not return to the health care system, or returned under more dire circumstance, such as involuntary care.

An important facilitating factor was the positive support of family, friends, professionals and health-care facilities. The participants saw this as critical because positive support helped them to recognise and deal with the effect of the illness. Some participants suggested that seeking help from any source was primarily a matter of trust.

I told them [parents] that I had these attacks, and didn't know what to do … Mum said I should go home. They try to help me (Chris).

Information was not always gained through direct personal contact however, but could come to light through other means, such as websites. School-based interventions may be seen as threatening for young people who have a desire for conformity and acceptance by their peers.

Personal stories help, like the ones you get off the internet (Joe).

You'd feel a bit wimpy going to tell your mates and saying I've got this problem … they'd probably laugh at you (Fred).

CONCLUSION

This paper is based on the findings of a grounded theory research study investigating how young people experienced the onset of mental health problems and their interactions with the health care system. The study offers insights into the experiences of a small group of individuals and hence has limitations, but this theoretical approach provides an understanding of what 'finding a way' means to this group of participants and how it influences their lives. It offers a framework for understanding some of the cultural and contextual factors that affect young people's pathways into mental health services. Research such as this can inform the practice of primary health care professionals such as nurses, potentially increasing the effectiveness of interventions.

'Finding a way' indicates the life-changing process that the participants underwent in response to and as a result of the onset of mental health problems. Not all participants experienced each stage in the process, but all at some point experienced barriers that impeded their progress to care and factors that facilitated their movement from one step to the next. These could occur at any stage of the process, depending on the participants' life circumstances.

Mental health care is complex. For this reason, accessing care needs to be flexible and innovative for each individual. This research shows that the concept of a 'pathway to care', a term used frequently in the literature to refer either to what happens once the consumer has accessed care or to the developmental pathway of the illness itself, is a misnomer when applied to what happens at the outset. The term suggests a simple transition to care along a defined and known route; however the participants in this study did not experience such a pathway. The maze metaphor used by some of the participants more accurately reflected the experience of all.

'Finding a way' (see figure 1) through this maze to care, the core category and basic social process which emerged from the participants' accounts, involves the active accomplishment of a number of complex and interconnected tasks. The participants had to learn about their illness and about themselves; deal with changes in personal relationships; and seek out suitable professional help in an often hostile social environment. These are all difficult propositions for young people experiencing mental health problems.

This research indicates that the pathway to care must be thought of as a multifaceted journey, commenced in ignorance and confusion. If young people are able to call on personal resilience, trust, family support, and helpful and knowledgeable health professionals, the journey is likely to be completed successfully and they are able to find a way through the stages to care. While some factors assist young people through the process, others can impede and these are found at all stages and can occur simultaneously. Stigma is still a significant issue.

Consistent with previous research into delays in accessing care (Steel et al 2006; Webster and Harrison 2004; Pescosolido and Boyer 1999), it is suggested that substantial barriers to accessing care remain and that young people's social networks are important influences on help-seeking processes. This study's significance to nursing practice rests in the fact that it presents the young person's perspective and provides insight into the complexity of the 'pathway to care' and some of the experiences of young people in accessing mental health services.

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Palliative care in a multicultural society: a challenge for western ethics

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KEY WORDS

palliative care, ethics, autonomy, truth telling, culture

ABSTRACT

Objective
This paper examines the notion of truth telling and its place in palliative care nursing with a particular focus on nursing people from minority cultures.

Setting
The setting is palliative care nursing.

Subjects
The subjects are patients receiving palliative nursing care particularly those from minority cultures.

Primary argument
Australia is a multicultural society yet its dominant ethical paradigm is firmly placed in the western philosophical tradition. The fundamental concept that western ethics is based on is that of autonomy which implies that the individual is a free agent able to make their own decisions including accepting or rejecting medical treatments. These decisions are based on the individual's right to be informed about all treatment options. From this position of the autonomous subject other ethical principles have their genesis. Nurses' ethical behaviour is guided to some extent by ethical principals including beneficence, non-maleficence and truth telling. The major contention, drawn from literature is that truth telling may be an inadequate ethical principle when working with people from minority cultures.

Conclusion
This paper argues that the western ethical concepts of autonomy and truth telling in the practice domain of palliative care nursing may not be appropriate for different cultural groups and that this may become a source of ethical dilemmas and a challenge for western ethics. The paper concludes with an option for nurses working in multicultural societies that accommodates differing cultural perspectives while not compromising the ethical principle of truth telling.

WHAT IS PALLIATIVE CARE?

Palliative care is known for its provision of a comfortable environment for dying or terminally ill people. The focus is on providing care options for symptomatic patients to improve quality of life with the focus on care rather than cure (Davis and Kuebler 2007). Patients can be palliated in the comfort of their own home, a hospice setting, aged care facility or the acute hospital sector (Maddox 2003). Palliative care also provides patients who are able to continue with their medical treatment, relief from the suffering they may experience. Moreover, palliative care also respects a persons' dignity as death approaches. Palliative care is central to cancer care and more increasingly, to end-of-life chronic care (Portenoy 1998).

Also central to palliative care is the patient and their family in relation to their cultural and spiritual needs. In principle, the individual, their family and palliative care nurses work collaboratively to clarify treatment preferences, values and goals which should be included in advanced care planning. The key to successful advanced care planning is effective communication based on the development of trust and respect (Moore 2007).

Bowman (2000) stated that in end-of-life care, medical decision making is the first step. Palliative care nurses need to understand the beliefs of the patient and their family about the treatment of the disease and the outcome of that treatment. The treatment plan should be accepted by the patient, their family and the health care team. Consideration regarding the burden of care between caregiver, family and patient also needs to be addressed. When a person has a diagnosis of cancer, their family faces an unknown future with the possibility of the patient living for ten weeks or ten years. The patient may feel anger, depression and shock; emotions can add anxiety into everyday issues and be a burden for family members or caregivers, both emotionally and financially. In the palliative care system, family members are the most important support for the patient's spiritual and emotional needs as they go through a series of treatment processes. End-of-life

decision making is a complicated process for the patient, the family and palliative care nurses because of a range of complex factors. For example, what are the patient and family beliefs about end of life care; what are the cultural difference between the nurses, physicians, family and the patient? The patient within the context of their family is central to palliative care nursing and the patient's wishes are primary regardless of the demands of the medical treatment. Therefore palliative care nurses have a particular role in advocating on behalf or their patients.

Many ethical dilemmas occur when working in palliative care and the confusion or conflict around advanced care planning is one issue where ethical dilemmas occur. Coveney (2007) argues that with effective communication, clear explanations and respect for the rights for the individual, ethical dilemmas can be reduced. Ethical dilemmas (Chiu et al 2000) can and do happen between the patient, family and medical team relating to issues such as: telling the truth; disclosure; use of medication; decision making; nutrition; and other treatment practices.

The underlying principle is that patients have the ability to understand their prognosis, treatment options and possible outcomes; they want to know their prognosis and treatment and finally they want to participate in advanced care planning. However this assumption is based on the western ethical notion of autonomy which is a concept not all cultural groups subscribe to, even though it is dominant in the bioethical model valued by mainstream health care in Australia.

WESTERN ETHICS

The notion of autonomy has evolved from the ancient Greek concept of 'self-government.' The modern endeavour has been to try and identify the 'self' located in a complex set of contexts and "...closely tied to concepts of liberty and freedom, identity and individualism" (Woods 2005 p.243). This is premised on Kant's (1786) view that liberty or freedom was necessary for moral decision making. An individual must be free to be able to make the right moral choices

and must also have the capacity to reflect on those choices. People have the ability to understand and know what is right and wrong but they can only do what is right for themselves (Tai and Lin 2001).

Autonomy has become the most important principle in western bioethics. A person has the right to their own decision making and to exercise independent action and individual choice (Johnstone 2004; Beauchamp and Childress 1994) after having been fully informed of the treatment options available. It is important to respect what a person thinks and the decisions and actions they take; family and health care professionals listen to their voice and respect their self-determination (Tsai 1999). Applying this to the relationship between health care professional and the patient means the patient is the centre of decision making and their choice of treatment, after being informed of their diagnosis, prognosis and treatment options, is their own decision, even if the decision seems counter to the recommendations of health care providers.

At the end of life it would appear that exercising autonomy, being informed and being capable of making decisions are fundamental. The individual should be in a position to be able to make treatment decisions about how he or she wishes to live out the remainder of his or her days. The ability to choose treatment or reject treatment should be the right of any individual undergoing palliative care. The ability to make informed decisions about treatment options is not only based on the notion of autonomy but also on other western bioethical notions such as truth telling or veracity. Underpinning this is that physicians and nurses speak honestly about diagnosis and treatment options in order for the individual to be able to make an informed decision.

However there is evidence to suggest that other cultural groups, specifically minority ethnic groups (Payne et al 2005) do not access palliative care or underutilise the services and it cannot be assumed that these services are needed less in these communities that in Anglo-Saxon communities. Although Payne et al (2005) undertook their study in Britain; their literature review was international and included an Australian study. It is fair to assume that in Australia, which has a dominant Anglo-Saxon tradition, it would be the same.

A LITERATURE REVIEW OF CULTURE AND PALLIATIVE CARE

There are many different definitions of 'culture', but generally they include notions that allow groups to function smoothly and self perpetuate. Definitions include: shared values and beliefs; common communication; rules of behaviour; and laws. Culture is seen as a dynamic and a socially constructed reality which simultaneously includes and excludes (Huddelson 2004; Chater 2002). Witt Sherman (2006) suggested that "Spirituality and culture are among the most important factors that structure human experience, values, behaviours and illness patterns... As a system of shared symbols and beliefs, culture supports a person's sense of security, integrity and belonging and provides a prescription for how to conduct life and approach death" (p.3).

Hermsen and ten Have (2004) in their literature review of English language journals on ethics found that "(w)hat was particularly emphasized in the articles about truth telling was the need for disclosure of diagnosis and prognosis" (p.392). However Tuckett (2004), in a similar literature review found that truth telling can be seen as a cultural artefact. While it can be argued that all cultural groups hold the truth in esteem, the manifestation and practice of truth telling varies and is tempered by different cultural practices.

Bowman et al (2004) argue that: "... western health care is grounded in patient autonomy. It promotes individual determination, informed consent and disclosure of illness as ideal. Yet in many cultures family duties and obligations take precedence over patient autonomy" (p.406). Their study of 40 Chinese seniors living in Toronto, Canada in relation to 'truth telling' found that the respondents' attitudes toward this topic were deeply rooted in their religious beliefs, namely Confucian, Buddhist and Taoist practices.

In a letter to the editor titled 'A Chinese perspective on autonomy', Xu (2004) drew on her personal

experience of her father's long and debilitating illness. She argued that the notion of 'autonomy' had little relevance to Chinese culture and that disclosure and veracity could actually cause harm if the news was negative. She argues that this was against the western principle of non-maleficence. Tzeng and Yin (2006) conducted a study examining the demands for religious care in the Taiwanese health system. They argued that seeing Taiwan's major religion is Confucianism, palliative care, dying, and death should follow Confucian rites.

In a discussion on Asian-American patient's beliefs and attitudes toward the western concept of veracity in relation to death and dying, Loseth et al (2005) found that willingness to discuss depended on a variety of issues such as acculturation and length of time away from country of origin. They argued that Chinese prefer non-verbal cues and suggested that the concept 'Zhih Yi' - "just knowing what the other thinks and feels" (p.316) and the Japanese term 'Inshin Denshin' of "knowing without being told" (p.316) are the cultural concepts that take precedence over the western notion of 'fidelity'.

Izumi (2006) writing about Japanese nurses, argued that everyday nursing did not include ethical decision making in broad abstract western ethical models. She argued that while Japanese society respected western thought and technology, the ethical concepts were superimposed on a culture with a long and rich tradition of values.

Again focussing on Japanese nurses, Konishi and Davis (2006) argued that in this era of globalisation, the western influence can dominate as countries borrow advanced technologies relating to science, engineering and medicine. Along with this come western concepts of ethics. This overlay of one set of values onto another may not work. They argue that the eastern belief in the Taoism concept of 'non-action' may not sit well with western ethics. They also argue that non-action means reaching an enlightened state. The notion of the autonomous self is not central to eastern ethics and this they argue brings eastern ethics closer in line with feminist ethics "… although for very different reasons … we are from

the beginning in relation and only secondarily and dependently, individuals" (p.225).

What is evident from this brief literature review is that minority ethnic groups living in dominant Anglo-Saxon societies appear not to uphold the western ethical concepts such as autonomy, veracity and fidelity as their Anglo-Saxon counterparts. What is upheld above western ethics are deeply ingrained philosophical and spiritual values that are perpetuated through cultural practices.

EASTERN ETHICS

In Chinese traditional culture, the family members are seen as a unit rather than individuals within that unit. The individual is seen as part of the whole and because of this, family members are always involved in important personal decisions such as job selection, marriage arrangements and medical decision-making; family members have a major say in anything involving the patient. This is because the moral philosophy and ideology of Chinese culture usually follows Confucian ethics. Thus the notion of autonomy or individual right and choice is subsumed by the family unit. Autonomy is not a traditional part of Chinese culture (Tse et al 2003) and all the implications relating to decision making are replaced by concepts and actions such as benevolence, compassion, filial piety, Jing (virtue) and Cheng (sincerity) (Tai and Lin 2001; Pang 1999).

In Chinese traditional culture, it is important not to disclose the truth of the illness especially to a terminally ill patient. There is a fear that the patient will worry and be sad if his or her health condition worsens. Although physicians have an obligation to inform patients of their diagnosis and the range of treatment available to them, family members will request this information be kept from the patient if they know that the patient has a serious health condition such as cancer. In this situation, truth telling or veracity will not generally be discussed in the hospital setting because family members believe that it will be harmful to the patient's feelings and thus affect the medical treatment. The family members usually try to hide the truth from the patient in order to

avoid any fear or anxiety when the patient's diagnosis is negative. This is in keeping with the Confucian practice of benevolence and compassion.

IS THERE AN ETHICAL DILEMMA

In Australia, nurses undergo a three year degree at university level in order to be able to be registered as nurse. Part of the curriculum is generally a compulsory unit in bioethics and nursing practice. Also, because Australia is a multicultural society, nurses may undertake a unit in cross-cultural studies which has a focus on differing cultural values and beliefs.

However the dominant paradigm through which ethics is taught is the western bioethical framework. Added to this there is a federal privacy legislation which enshrines and protects an individual's right to privacy. Even though nurses in Australia reflect the cultural diversity of this country, they are educated to uphold the concept of autonomy and consequently the notion of truth telling. The privacy legislation compounds this because nurses are obliged to keep diagnoses confidential for the patient. The dilemma of course is trying to uphold one set of ethical principles while caring for people from a wide variety of cultural backgrounds.

There are several ways to deal with this dilemma. It is considered that a palliative care goal is to provide a respect and a good quality of life for the person who is dying. McKinlay (2001) argued that health care teams should understand and care for the patient's feelings as well as their wellbeing. The focus is not always on the clinical condition but may turn to the spiritual or cultural need of the person who is dying; the most important concerns being family issues and spiritual support rather than the physical needs of patient. Therefore health care staff should recognise and identify the patients' values as the key aspect of care and listen to them.

As well, if we shift the focus from the right to know a diagnosis to the need to know a diagnosis, then the argument does not have to appear as a juxtaposition of cultural philosophical and ethical values. An individual may choose not to be told his or her diagnosis. Witt Sherman (2006) suggests that the

best way to do this is to "...ask the patient whom the information should be given to and who should make decisions" (p.26). This way the patient can choose to receive the information or not. If nurses proceeded in this way then an ethical conflict could be averted as the issue of truth telling becomes irrelevant. In this way diverse cultural ethics can be integrated into nursing practice but this may require the construction of new methodologies and languages (Tschudin 2006) as well as modifying how nursing ethics is taught.

As well as this, the concept of autonomy does not need to be as narrowly defined as it appears to be. Bowman et al (2004) found that although there is scepticism towards truth telling for some cultural groups, this could be accommodated into the western tradition of autonomy. They argue that: "(t)ruth telling in the West presupposes that a patient values his or her 'right to know' and to make decisions" (p.411). However "true autonomy does not presuppose the right to know, but rather the right to choose whether to know" (p.411). This is a powerful distinction when coupled with the idea of asking the patient who should be told of the diagnosis as well as the difference between the right to know and the need to know.

If nurses working in a multicultural society were to give people a choice about the information they receive in relation to their prognosis then there would be no conflict with truth telling and may also be caring for their patients according to the Jing and Cheng in the Chinese philosophy and medical ethics. A patient's culture always informs their values and beliefs and there needs to be agreement between the patient, their family and health care providers in order to treat patients with the dignity they deserve.

CONCLUSION

This paper examines the ethical concepts of autonomy and truth telling from the practice domain of palliative care nursing and minority ethnic groups and has argued that these concepts may not be appropriate for different cultural groups and that this may become a source of ethical dilemmas and a challenge for western ethics.

A way to resolve this possible dilemma is to broadly define the notion of autonomy and rights. If nurses' move from a position of the patient's right to know based on autonomy to a stand that encompasses a patient's need or choice to know then we open a space for the patient to choose not to know their prognosis and to defer that knowledge to the family. This being the case then palliative care nurses will not be compromising the ethical principle of truth telling while respecting the wishes of their patients.

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